

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTANXR1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS	3	JAN 16	CA/CAPLUS Company Name Thesaurus enhanced and reloaded
NEWS	4	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS	5	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS	6	JAN 22	CA/CAPLUS updated with revised CAS roles
NEWS	7	JAN 22	CA/CAPLUS enhanced with patent applications from India
NEWS	8	JAN 29	PHAR reloaded with new search and display fields
NEWS	9	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS	10	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS	11	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS	12	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS	13	FEB 26	MEDLINE reloaded with enhancements
NEWS	14	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS	15	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS	16	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS	17	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS	18	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS	19	MAR 16	CASREACT coverage extended
NEWS	20	MAR 20	MARPAT now updated daily
NEWS	21	MAR 22	LWPI reloaded
NEWS	22	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS	23	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS	24	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS	25	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS	26	APR 30	CA/CAPLUS enhanced with 1870-1889 U.S. patent records
NEWS	27	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS	28	MAY 01	New CAS web site launched
NEWS	29	MAY 08	CA/CAPLUS Indian patent publication number format defined
NEWS EXPRESS			NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS LOGIN			Welcome Banner and News Items
NEWS IPC8			For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 09:03:29 ON 14 MAY 2007

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 09:03:39 ON 14 MAY 2007

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 MAY 2007 HIGHEST RN 934672-05-6

DICTIONARY FILE UPDATES: 13 MAY 2007 HIGHEST RN 934672-05-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

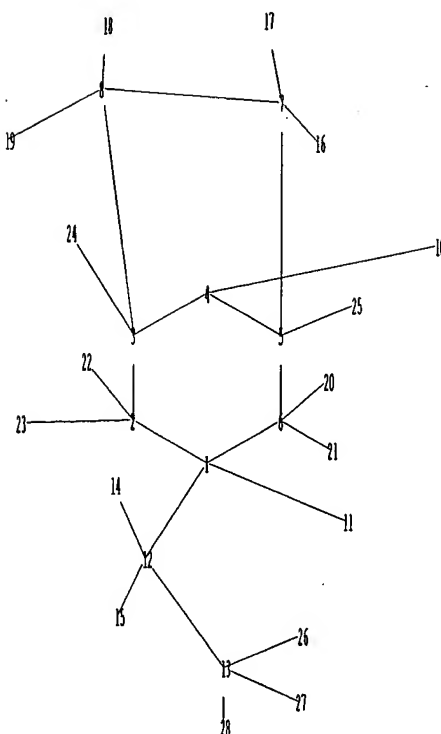
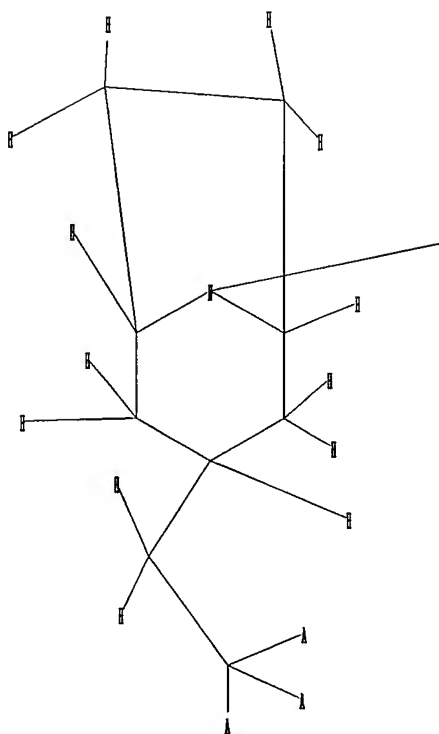
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10575839.str



chain nodes :  
 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25  
 ring nodes :  
 1 2 3 4 5 6 7 8  
 ring/chain nodes :  
 26 27 28  
 chain bonds :  
 1-11 1-12 2-22 2-23 3-24 4-10 5-25 6-20 6-21 7-16 7-17 8-18 8-19 12-13  
 12-14 12-15 13-26 13-27 13-28  
 ring bonds :  
 1-2 1-6 2-3 3-4 3-8 4-5 5-6 5-7 7-8  
 exact/norm bonds :  
 1-2 1-6 2-3 3-4 4-5 4-10 5-6 13-26 13-27 13-28  
 exact bonds :  
 1-11 1-12 2-22 2-23 3-8 3-24 5-7 5-25 6-20 6-21 7-8 7-16 7-17 8-18  
 8-19 12-13 12-14 12-15  
 isolated ring systems :  
 containing 1 :

Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 10:CLASS 11:CLASS  
 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS  
 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS  
 28:CLASS

L1 STRUCTURE UPLOADED

→ 11

L1 HAS NO ANSWERS

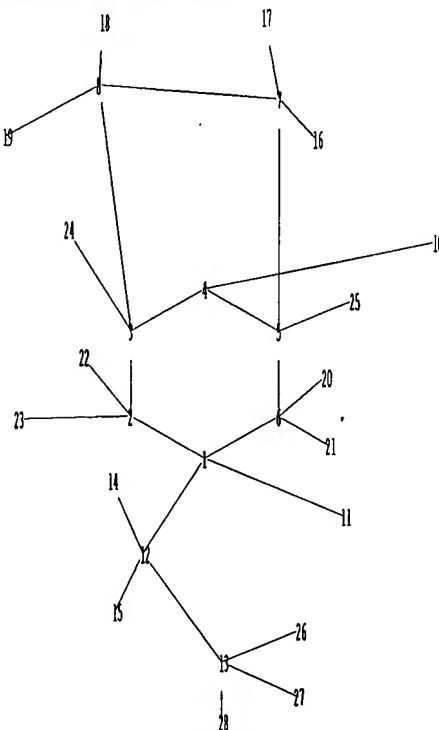
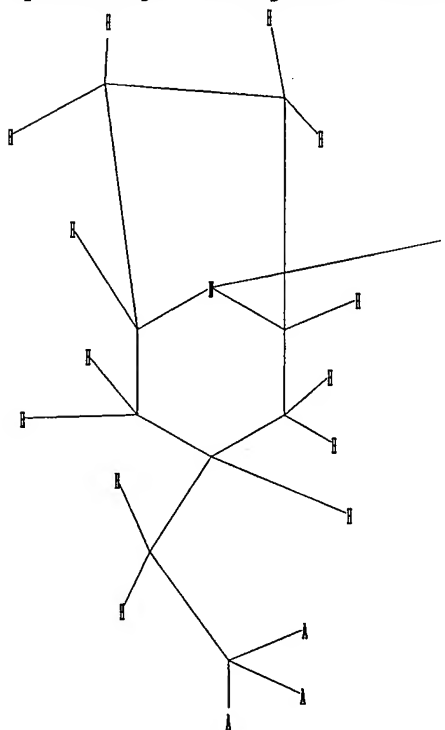
L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=>

Uploading C:\Program Files\Stnexp\Queries\10575839.str



chain nodes :

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

ring nodes :

1 2 3 4 5 6 7 8

ring/chain nodes :

26 27 28

chain bonds :

1-11 1-12 2-22 2-23 3-24 4-10 5-25 6-20 6-21 7-16 7-17 8-18 8-19 12-13  
12-14 12-15 13-26 13-27 13-28

ring bonds :

1-2 1-6 2-3 3-4 3-8 4-5 5-6 5-7 7-8

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 4-10 5-6 13-26 13-27 13-28

exact bonds :

1-11 1-12 2-22 2-23 3-8 3-24 5-7 5-25 6-20 6-21 7-8 7-16 7-17 8-18  
8-19 12-13 12-14 12-15

isolated ring systems :

containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 10:CLASS 11:CLASS  
12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS  
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS  
28:CLASS

L2           STRUCTURE UPLOADED

=> d 12

L2 HAS NO ANSWERS

L2                   STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s 12

SAMPLE SEARCH INITIATED 09:05:11 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 10288 TO ITERATE

19.4% PROCESSED       2000 ITERATIONS                   1 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
                          BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS:       199682 TO   211838  
PROJECTED ANSWERS:           1 TO       238

L3                   1 SEA SSS SAM L2

=> s 12 full

FULL SEARCH INITIATED 09:05:16 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 205421 TO ITERATE

100.0% PROCESSED   205421 ITERATIONS                   211 ANSWERS  
SEARCH TIME: 00.00.01

L4                   211 SEA SSS FUL L2

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
173.00	173.21

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 09:05:21 ON 14 MAY 2007

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FILE COVERS 1907 - 14 May 2007 VOL 146 ISS 21

FILE LAST UPDATED: 13 May 2007 (20070513/ED)

Effective October 17, 2005, updated CAS Information User Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 14 full  
L5 11 L4

=> d ibib abs hitstr tot

L5 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:146107 CAPLUS

DOCUMENT NUMBER: 146:229203

TITLE: Preparation of azoniabicyclooctanes as M3 muscarinic acetylcholine receptor antagonists.

INVENTOR(S): Busch-Petersen, Jakob; Laine, Dramane Ibrahim; Palovich, Michael R.; Davis, Roderick S.; Fu, Wei; Xie, Haibo

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 42pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

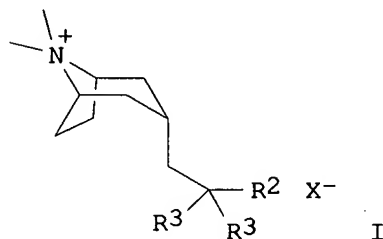
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007016639	A2	20070208	WO 2006-US30153	20060802
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.:

US 2005-704579P P 20050802

OTHER SOURCE(S): MARPAT 146:229203

GI



AB Title compds. [I; R1, R2 = (substituted) Ph, thienyl, pyridyl, PhCH2, pyrimidinyl, thiazolyl, isothiazolyl, cycloalkyl, etc.; R3 = H, OH; X = physiol. acceptable anion], were prepared for treatment of chronic obstructive pulmonary disease, chronic bronchitis, asthma, chronic respiratory obstruction, pulmonary fibrosis, emphysema, and allergic rhinitis (no data). Thus, 2-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1,1-bis[2-methyl-2-thienylethanol] (preparation given) was treated with MeBr in tert-Bu Me ether to give 61% (3-endo)-3-[2-hydroxy-2,2-bis(3-methyl-2-thienyl)ethyl]-8,8-dimethyl-8-azoniabicyclo[3.2.1]octane bromide.

IT 924646-68-4P 924646-70-8P 924646-72-0P

924646-74-2P 924646-76-4P 924646-78-6P  
 924655-67-4P 924655-70-9P 924655-72-1P  
 924655-73-2P 924655-75-4P 924655-77-6P  
 924655-78-7P 924655-80-1P 924655-81-2P  
 924655-82-3P 924655-83-4P 924655-84-5P  
 924655-85-6P 924655-89-0P 924655-90-3P  
 924655-91-4P

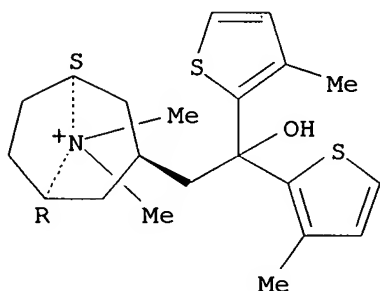
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

(claimed compound; preparation of azoniabicyclooctanes as M3 muscarinic  
 acetylcholine receptor antagonists)

RN 924646-68-4 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.

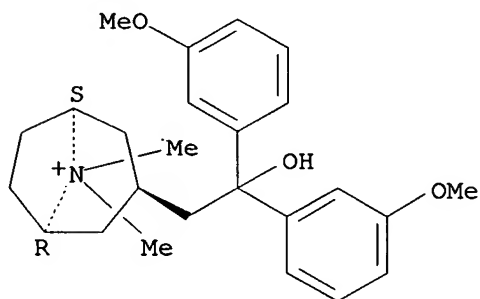


● Br<sup>-</sup>

RN 924646-70-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.

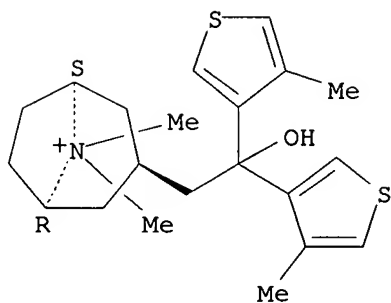


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RN 924646-72-0 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

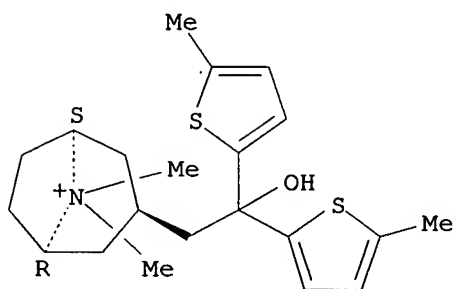
Relative stereochemistry.



● Br<sup>-</sup>

RN 924646-74-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

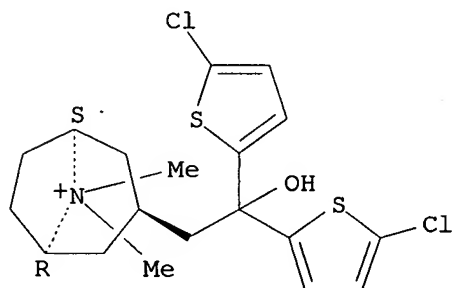
Relative stereochemistry.



● Br<sup>-</sup>

RN 924646-76-4 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.

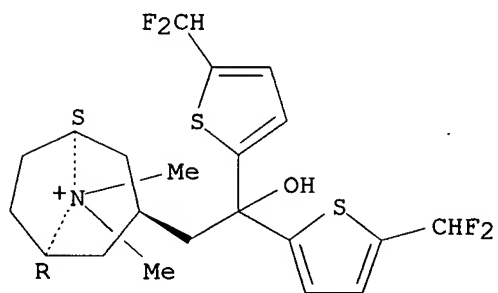


RN 924646-78-6 CAPLUS



CN INDEX NAME NOT YET ASSIGNED

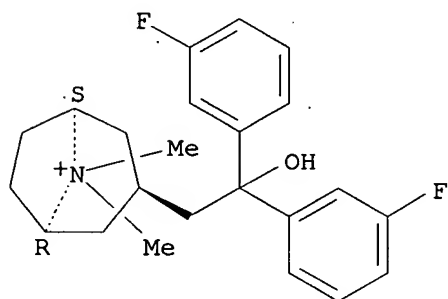
Relative stereochemistry.



RN 924655-67-4 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

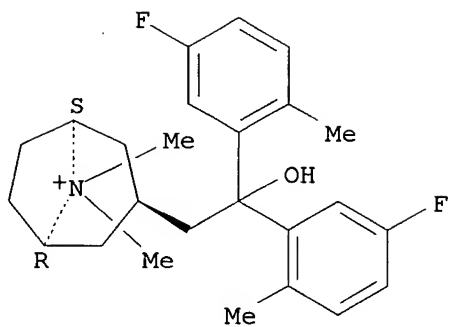
Relative stereochemistry.



RN 924655-70-9 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

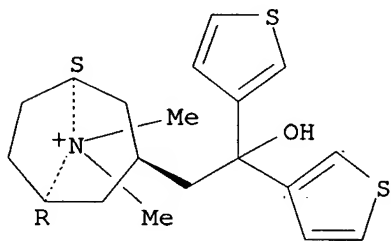
Relative stereochemistry.



● Br<sup>-</sup>

RN 924655-72-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

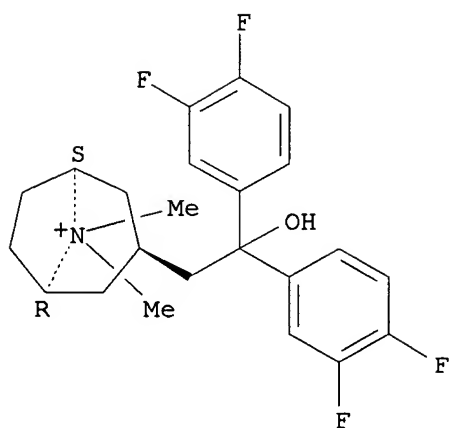
Relative stereochemistry.



● I<sup>-</sup>

RN 924655-73-2 CAPLUS  
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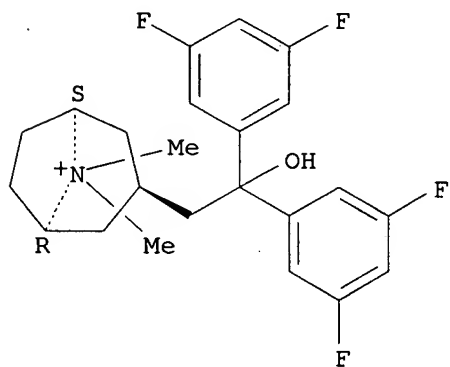
Relative stereochemistry.



● Br<sup>-</sup>

RN 924655-75-4 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

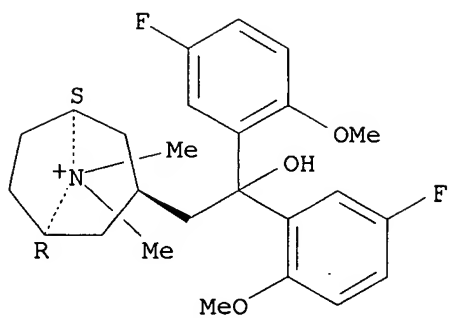
Relative stereochemistry.



● Br<sup>-</sup>

RN 924655-77-6 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

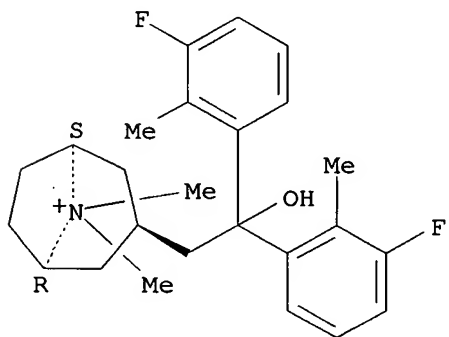
Relative stereochemistry.



● Br<sup>-</sup>

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CN INDEX NAME NOT YET ASSIGNED

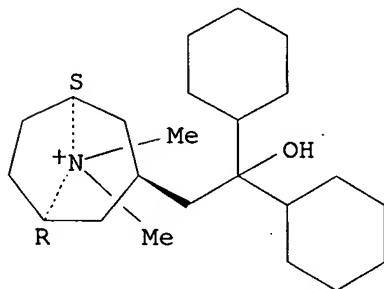
Relative stereochemistry.



● Br<sup>-</sup>

RN 924655-80-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

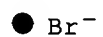
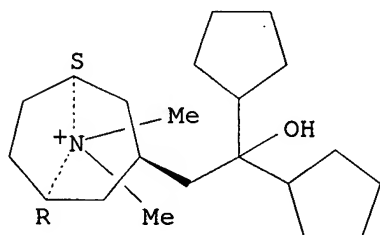
Relative stereochemistry.



● Br<sup>-</sup>

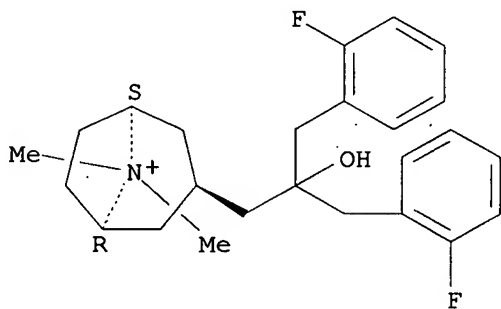
RN 924655-81-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



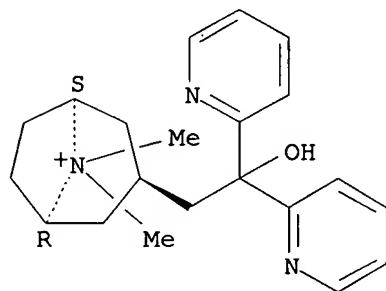
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CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



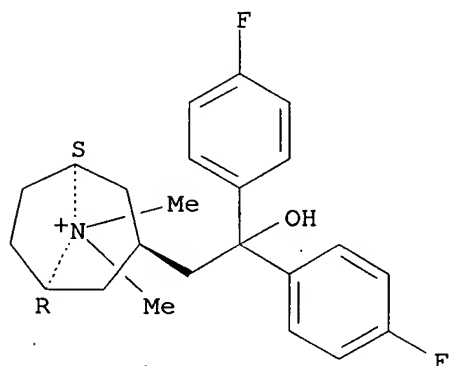
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CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



RN 924655-84-5 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

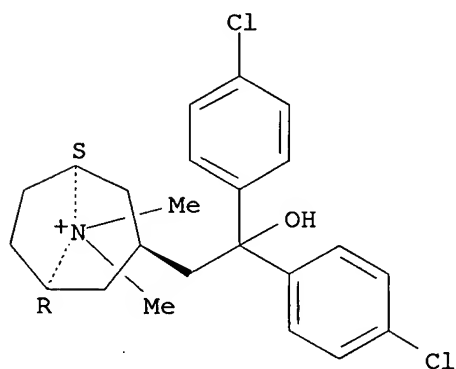
Relative stereochemistry.



● I<sup>-</sup>

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CN INDEX NAME NOT YET ASSIGNED

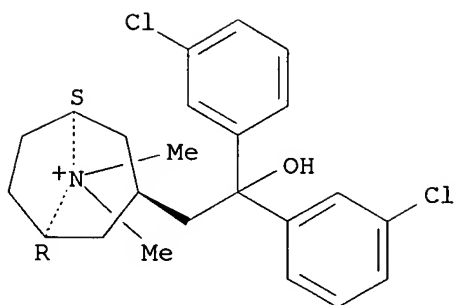
Relative stereochemistry.



● I<sup>-</sup>

RN 924655-89-0 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

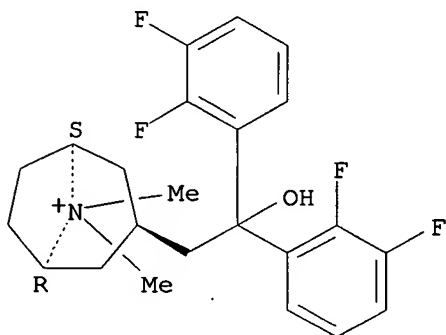
Relative stereochemistry.



● I<sup>-</sup>

RN 924655-90-3 CAPLUS  
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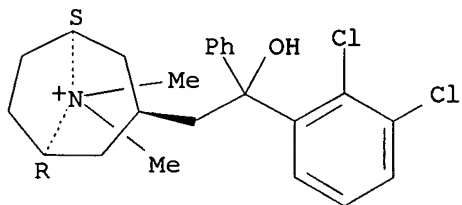
Relative stereochemistry.



● I<sup>-</sup>

RN 924655-91-4 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



● I<sup>-</sup>

11 924646-55-9P 924646-57-1P 924646-59-3P  
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924646-67-3P 924646-69-5P 924646-71-9P

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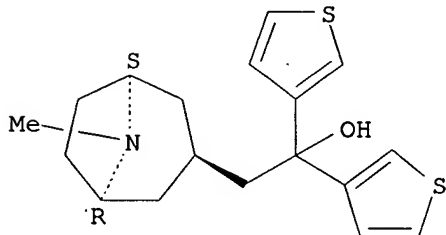
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation of azoniabicyclooctanes as M3 muscarinic acetylcholine receptor  
antagonists)

RN 924646-55-9 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

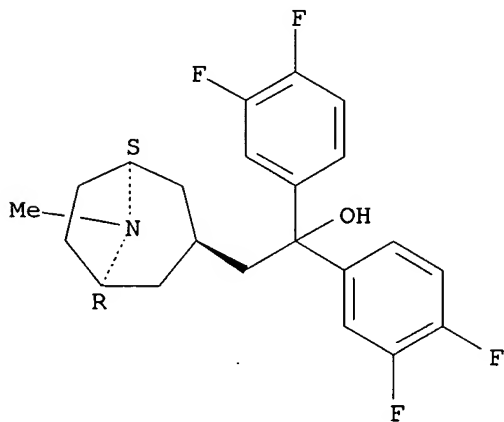
Relative stereochemistry.



RN 924646-57-1 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3,4-  
difluorophenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.

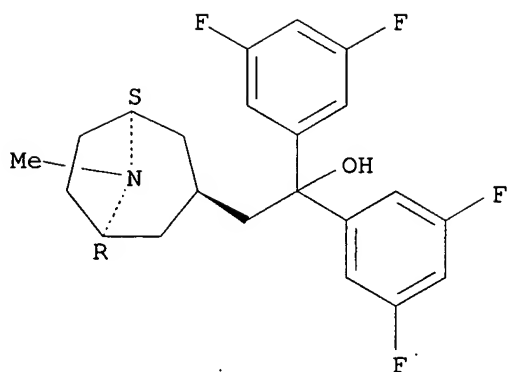


RN 924646-59-3 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3,5-  
difluorophenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

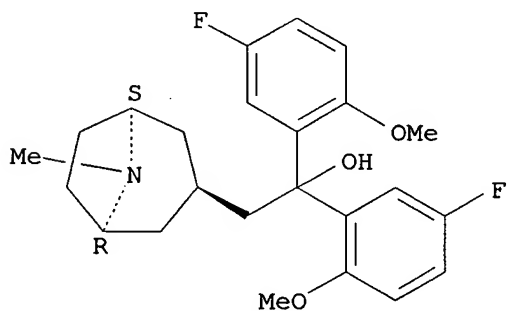
Relative stereochemistry.





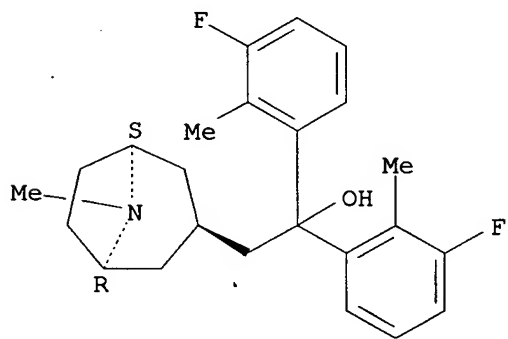
RN 924646-61-7 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



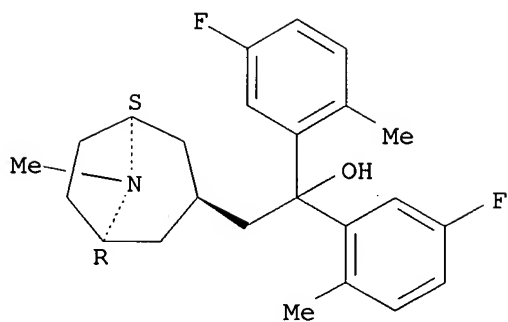
RN 924646-63-9 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3-fluoro-2-methylphenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.



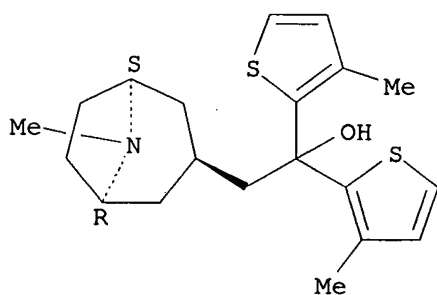
RN 924646-65-1 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(5-fluoro-2-methylphenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.



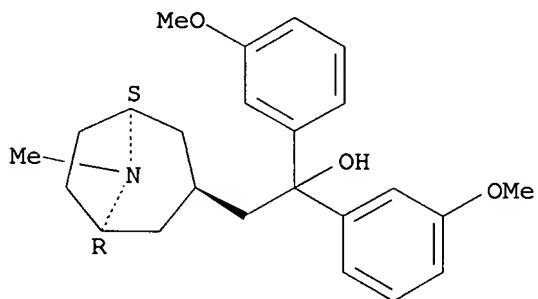
RN 924646-67-3 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



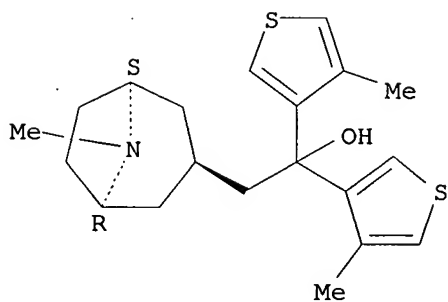
RN 924646-69-5 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3-methoxyphenyl)-  
8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.



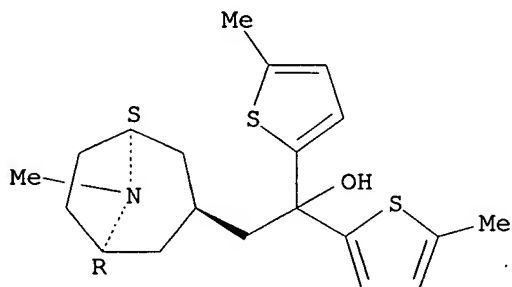
RN 924646-71-9 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



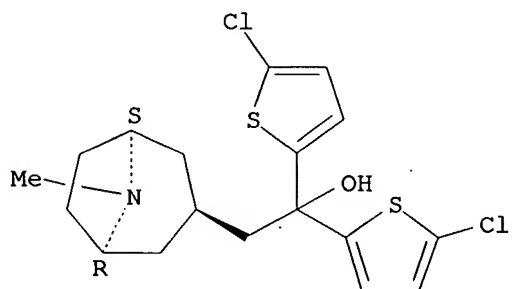
RN 924646-73-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



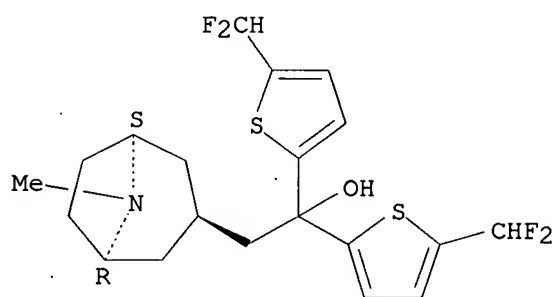
RN 924646-75-3 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



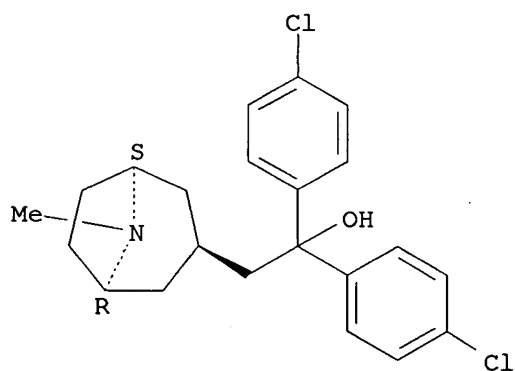
RN 924646-77-5 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis[5-(difluoromethyl)-2-thienyl]-8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.



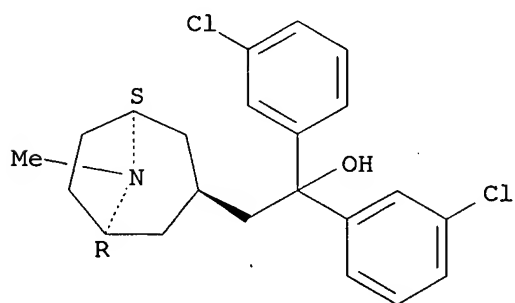
RN 924646-79-7 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



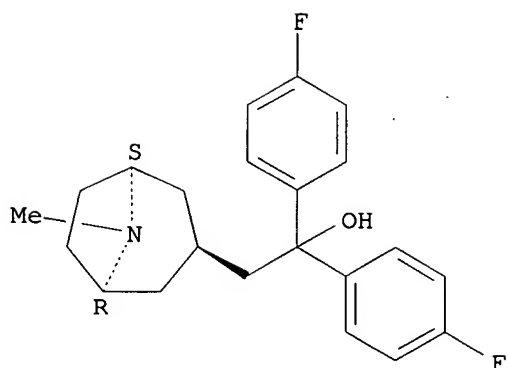
RN 924646-80-0 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



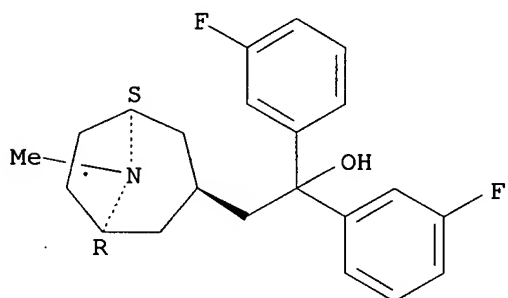
RN 924646-81-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



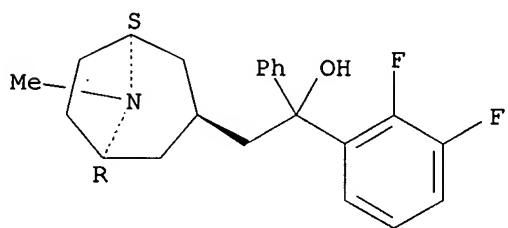
RN 924646-82-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



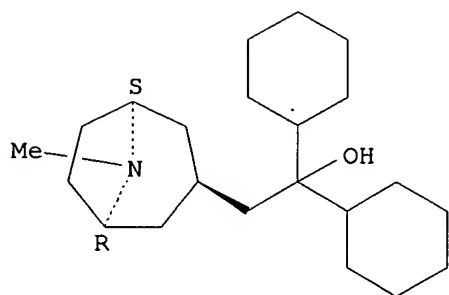
RN 924646-88-8 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



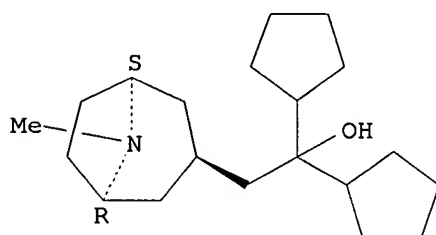
RN 924655-99-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



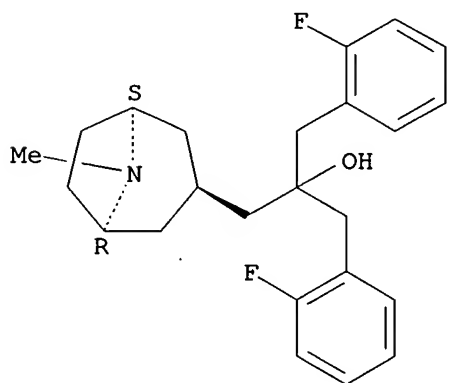
RN 924656-01-9 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



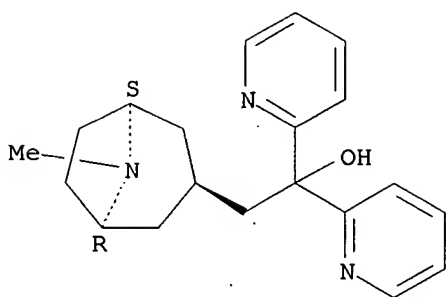
RN 924656-03-1 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis[(2-fluorophenyl)methyl]-8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.



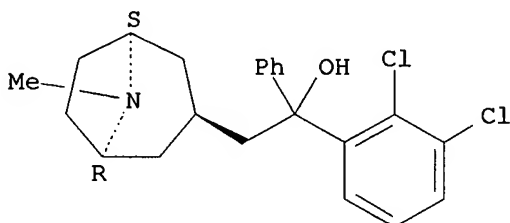
RN 924656-05-3 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



RN 924656-25-7 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



L5 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:144089 CAPLUS

DOCUMENT NUMBER: 146:229182

TITLE: Preparation of 3-(arylethenyl)-8,8-dimethyl-8-azoniabicyclo[3.3.1]octanes as M3 muscarinic acetylcholine receptor antagonists.

INVENTOR(S): Busch-Petersen, Jakob; Laine, Dramane Ibrahim; Palovich, Michael R.; Davis, Roderick S.; Fu, Wei; Xie, Haibo

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 35pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007016650	A2	20070208	WO 2006-US30218	20060802
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MG, MN, MU, NI, NG, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			

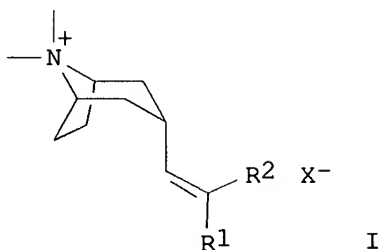
PRIORITY APPLN. INFO.:

US 2005-704578P

P 20050802

OTHER SOURCE(S): MARPAT 146:229182

GI



AB Title compds. [I; R1, R2 = (substituted) Ph, thienyl, pyridyl, PhCH2, pyrimidinyl, thiazolyl, isothiazolyl, cycloalkyl, etc.; X = pharmaceutically acceptable counterion], were prepared for treatment of COPD, chronic bronchitis, asthma, chronic respiratory obstruction, pulmonary fibrosis, emphysema, and allergic rhinitis (no data). Thus, (endo)-3-[2,2-bis(3-hydroxyphenyl)ethenyl]-8,8-dimethyl-8-azoniabicyclo[3.2.1]octane bromide was prepared from tri-Me phosphonoacetate, tropinone, MeI, and 3-methoxyphenylmagnesium bromide.

IT 924646-91-3

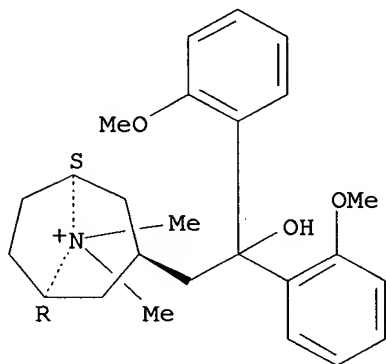
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of arylenethyldimethylazoniabicyclooctanes as M3 muscarinic acetylcholine receptor antagonists)

RN 924646-91-3 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



● I<sup>-</sup>

IT 924646-55-9P 924646-57-1P 924646-59-3P  
 924646-61-7P 924646-63-9P 924646-65-1P  
 924646-67-3P 924646-68-4P 924646-69-5P  
 924646-70-8P 924646-71-9P 924646-72-0P  
 924646-73-1P 924646-74-2P 924646-75-3P  
 924646-76-4P 924646-77-5P 924646-78-6P  
 924646-79-7P 924646-80-0P 924646-81-1P  
 924646-82-2P 924646-83-3P 924646-84-4P

RL: RCT (Reactant); SYN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of arylenethyldimethylazoniabicyclooctanes as M3 muscarinic

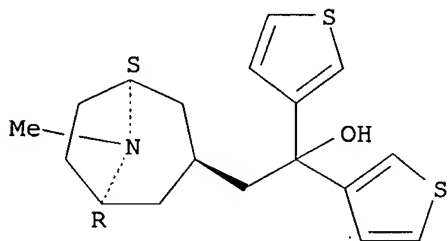


acetylcholine receptor antagonists)

RN 924646-55-9 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

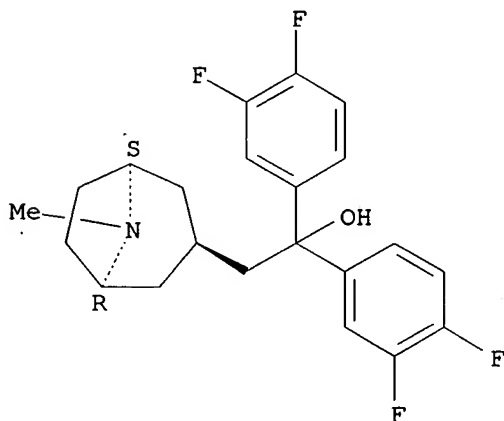
Relative stereochemistry.



RN 924646-57-1 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3,4-difluorophenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

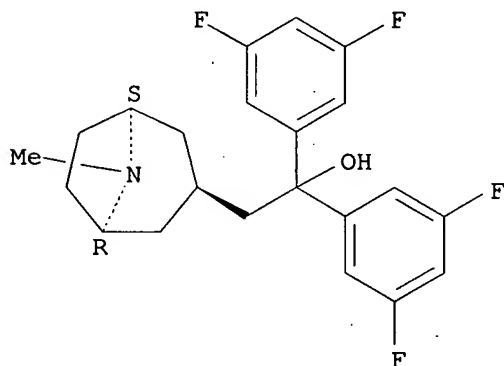
Relative stereochemistry.



RN 924646-59-3 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3,5-difluorophenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

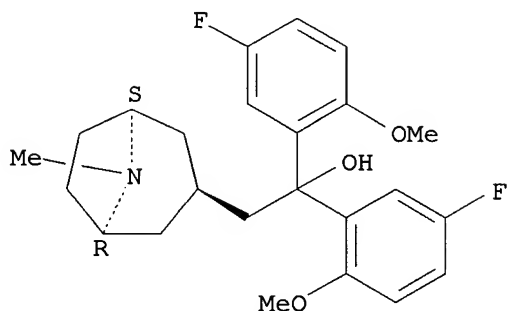
Relative stereochemistry.



RN 924646-61-1 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

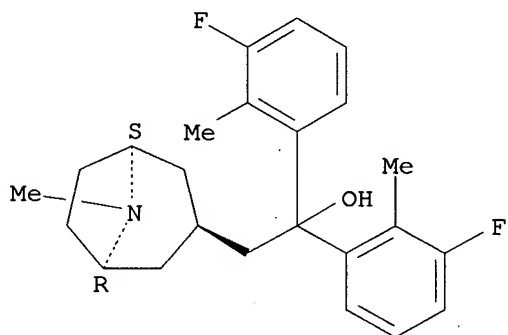
Relative stereochemistry.



RN 924646-63-9 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3-fluoro-2-methylphenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

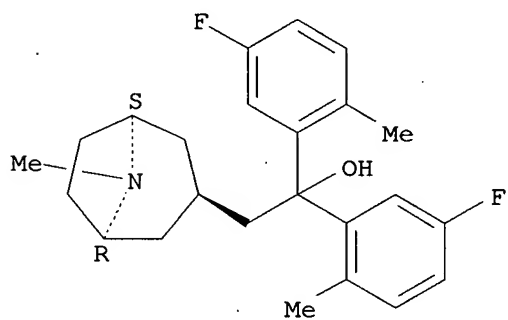
Relative stereochemistry.



RN 924646-65-1 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(5-fluoro-2-methylphenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

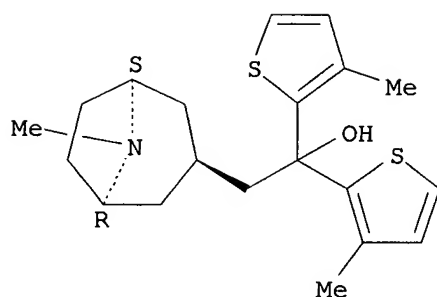
Relative stereochemistry.



RN 924646-67-3 CAPLUS

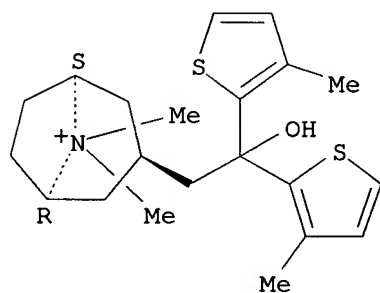
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



RN 924646-68-4 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

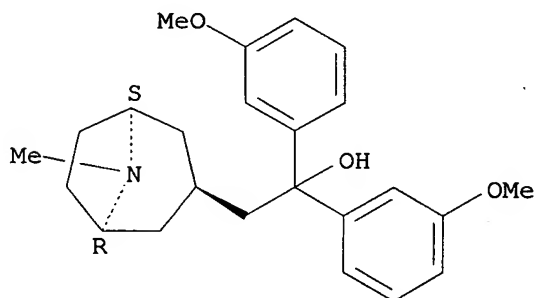
Relative stereochemistry.



● Br<sup>-</sup>

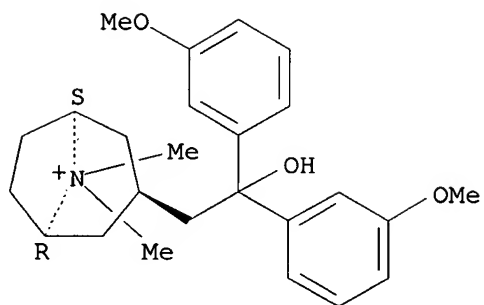
RN 924646-69-5 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(3-methoxyphenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.



RN 924646-70-8 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

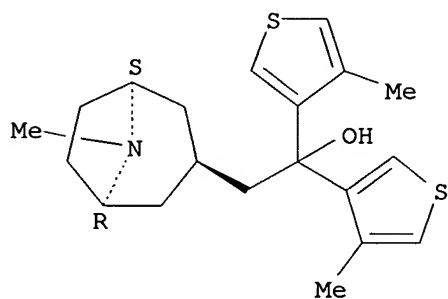
Relative stereochemistry.



● I<sup>-</sup>

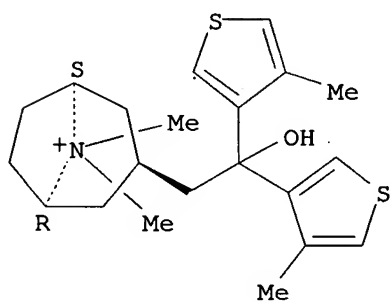
RN 924646-71-9 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



RN 924646-72-0 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

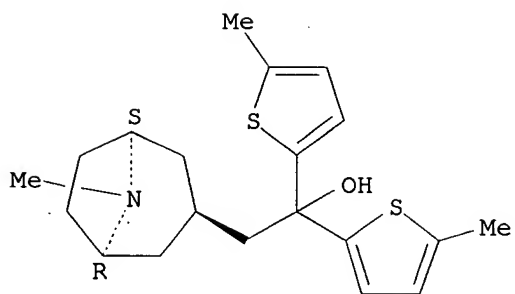
Relative stereochemistry.



● Br<sup>-</sup>

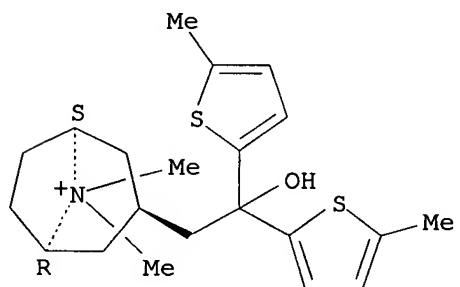
RN 924646-73-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



RN 924646-74-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

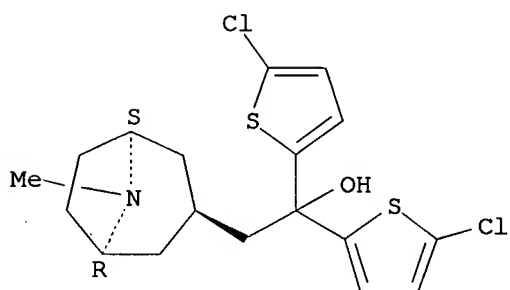
Relative stereochemistry.



● Br<sup>-</sup>

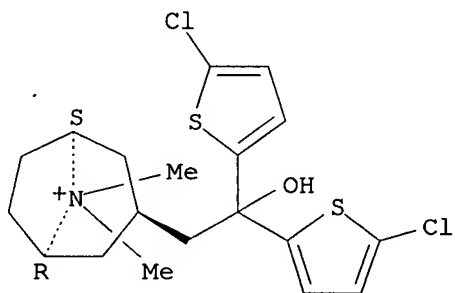
RN 924646-75-3 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



RN 924646-76-4 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.

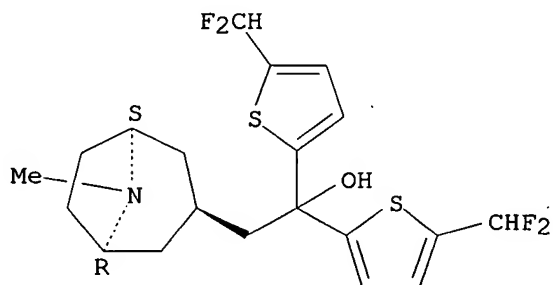


● Br<sup>-</sup>

RN 924646-77-5 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis[5-(difluoromethyl)-2-thienyl]-8-methyl-, (3-exo)- (CA INDEX NAME)

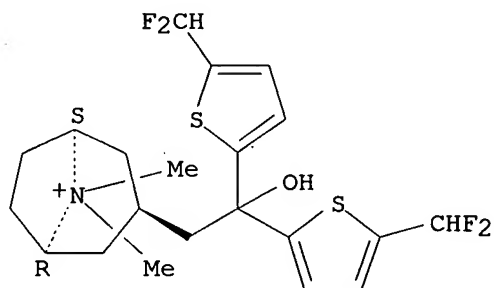
Relative stereochemistry.



RN 924646-78-6 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.

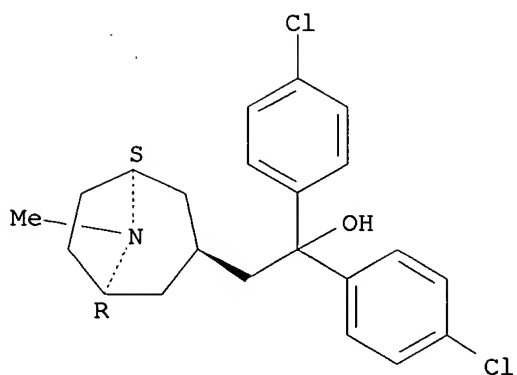


● Br<sup>-</sup>

RN 924646-79-7 CAPLUS

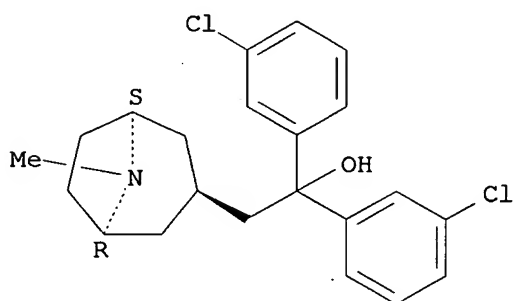
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



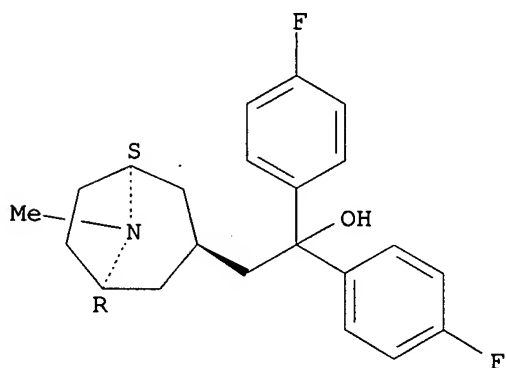
RN 924646-80-0 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



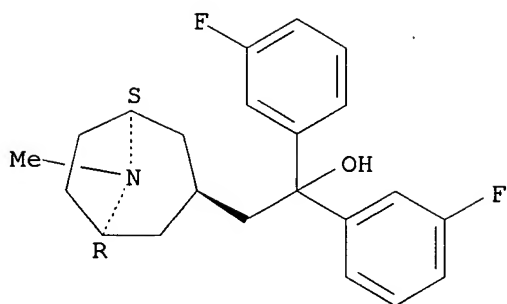
RN 924646-81-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



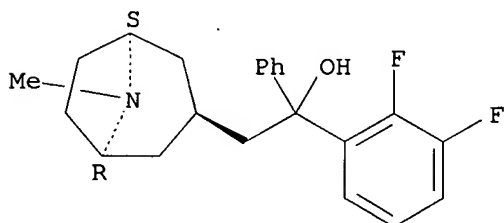
RN 924646-82-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



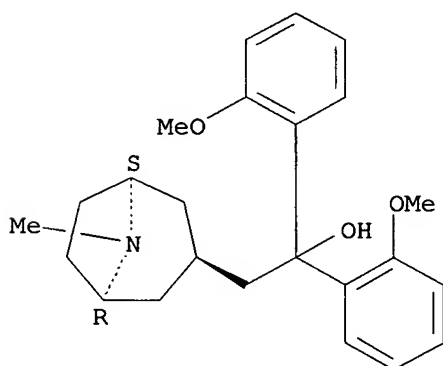
RN 924646-88-8 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.



RN 924646-89-9 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha,\alpha$ -bis(2-methoxyphenyl)-8-methyl-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.



L5 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:451115 CAPLUS

DOCUMENT NUMBER: 143:7605

TITLE: A preparation of azabicyclo[3.2.1]octane derivatives, useful as M3 muscarinic acetylcholine receptor antagonists

INVENTOR(S): Wan, Zehong; Yan, Hongxing; Palovich, Michael R.; Laine, Dramane I.; Lee, Dennis; Stavenger, Robert A.; Goodman, Krista B.; Hilfiker, Mark A.; Cui, Haifeng; Hsieh, Andrew W.; Marini, Joseph P.

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2



DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005046586	A2	20050526	WO 2004-US36663	20041104
WO 2005046586	A3	20050728		
WO 2005046586	A8	20050901		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1682142	A2	20060726	EP 2004-810294	20041104
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR, IS			
JP 2007510731	T	20070426	JP 2006-539633	20041104
PRIORITY APPLN. INFO.:			US 2003-517243P	P 20031104
			WO 2004-US36663	W 20041104
OTHER SOURCE(S):	CASREACT 143:7605; MARPAT 143:7605			
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

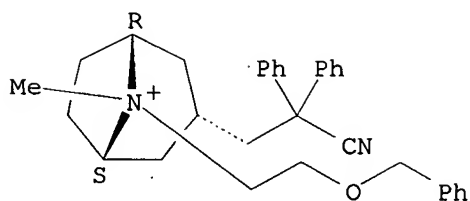
AB The invention relates to a preparation of azabicyclo[3.2.1]octane derivs. of formula I•X- [wherein: X- is an anion; R1 is alkyl, alkenyl, alkylcycloalkyl, or alkyl-OMe, etc.; R2 is (cyclo)alkyl, heterocycloalkyl, or cycloalkylalkyl, etc.], useful as M3 muscarinic acetylcholine receptor antagonists (no biol. data). For instance, quaternary azabicyclo[3.2.1]octane derivative II•Br- was prepared via quaternization of N-methylazabicyclo[3.2.1]octane derivative III by cyclopropylmethyl bromide with a yield of 51%.

IT 852436-01-2P 852436-02-3P 852460-99-2P  
852461-00-8P 852461-01-9P 852461-02-0P  
852461-03-1P 852461-04-2P 852461-05-3P  
852461-06-4P 852461-07-5P 852461-08-6P  
852461-09-7P 852461-10-0P 852461-11-1P  
852461-12-2P 852461-13-3P 852461-14-4P  
852461-18-8P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of azabicyclo[3.2.1]octane derivs. useful as M3 muscarinic acetylcholine receptor antagonists)

RN 852436-01-2 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-methyl-8-[2-(phenylmethoxy)ethyl]-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Delisting chemical structure

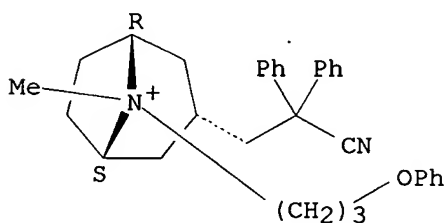


● Br<sup>-</sup>

RN 852436-02-3 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-methyl-8-(3-phenoxypropyl)-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

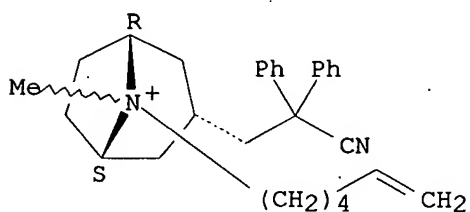


● Br<sup>-</sup>

RN 852460-99-2 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-(5-hexenyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

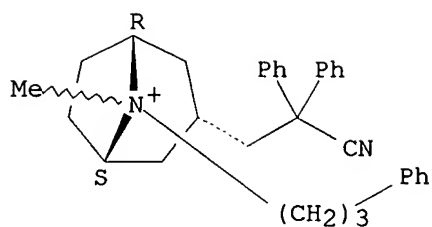


● Br<sup>-</sup>

RN 852461-00-8 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-methyl-8-(3-phenylpropyl)-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

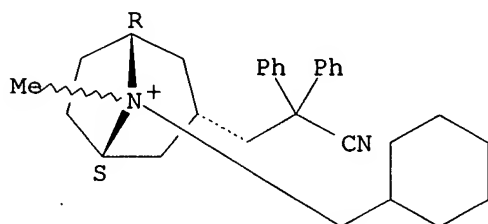


● Br<sup>-</sup>

RN 852461-01-9 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-(cyclohexylmethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

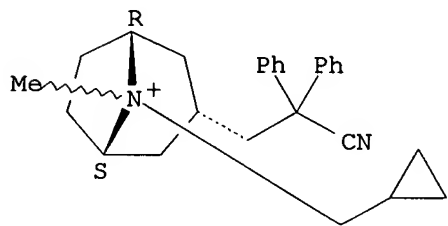


● Br<sup>-</sup>

RN 852461-02-0 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-(cyclopropylmethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

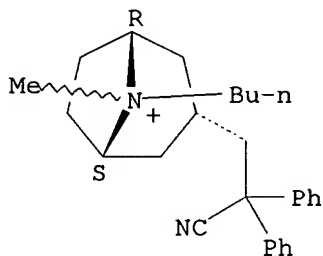


● Br<sup>-</sup>

RN 852461-03-1 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 6-butyl-3-(2-cyano-2,2-diphenylethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

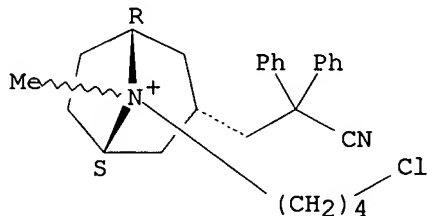


● Br<sup>-</sup>

RN 852461-04-2 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 8-(4-chlorobutyl)-3-(2-cyano-2,2-diphenylethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

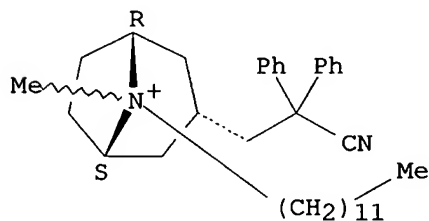


● Br<sup>-</sup>

RN 852461-05-3 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-dodecyl-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

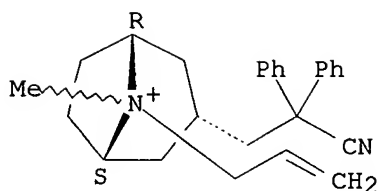


● Br<sup>-</sup>

RN 852461-06-4 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-methyl-8-(2-methylundecyl)-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

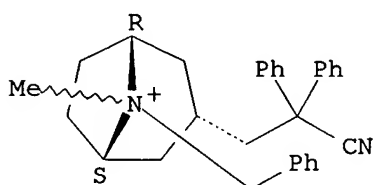


● I<sup>-</sup>

RN 852461-07-5 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-methyl-8-(phenylmethyl)-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

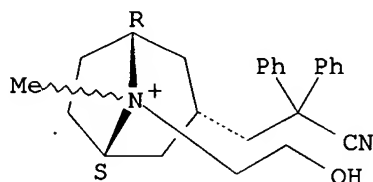


● Br<sup>-</sup>

RN 852461-08-6 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-(2-hydroxyethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

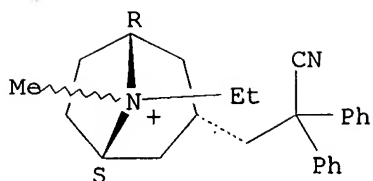


● Br<sup>-</sup>

RN 852461-09-7 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-ethyl-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

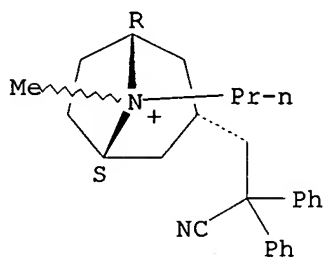


● Br<sup>-</sup>

RN 852461-10-0 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-methyl-8-propyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

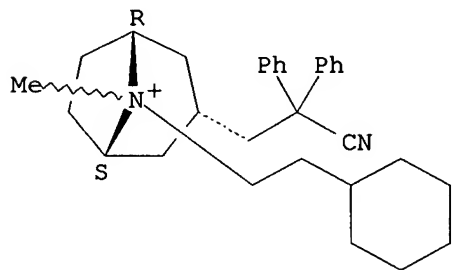


● Br<sup>-</sup>

RN 852461-11-1 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-(2-cyclohexylethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

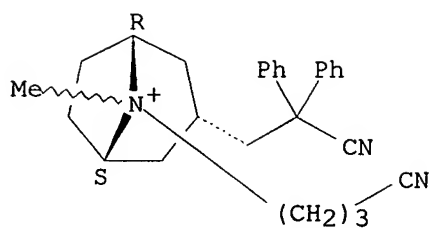


● Br<sup>-</sup>

RN 852461-12-2 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-(2-cyclohexylethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

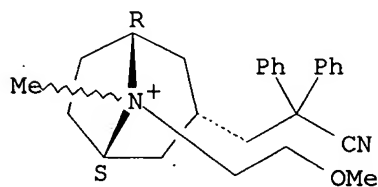


● Br<sup>-</sup>

RN 852461-13-3 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-(2-methoxyethyl)-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

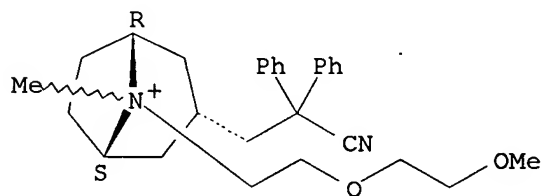


● Br<sup>-</sup>

RN 852461-14-4 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-[2-(2-methoxyethoxy)ethyl]-8-methyl-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

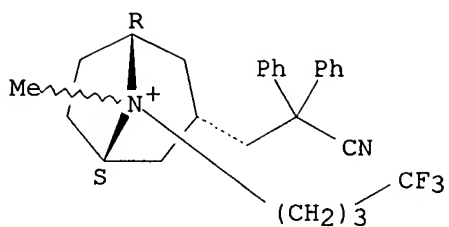


● Br<sup>-</sup>

RN 852461-18-8 CAPLUS

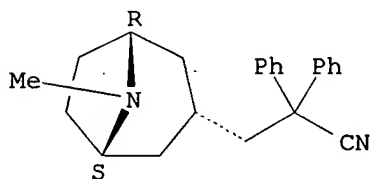
CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8-methyl-8-(4,4,4-trifluorobutyl)-, bromide, (3-endo,8-syn)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



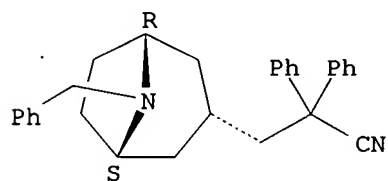
IT 850607-53-3P 852435-95-1P 852435-97-3P  
 852435-98-4P 852435-99-5P 852436-00-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of azabicyclo[3.2.1]octane derivs. useful as M3 muscarinic  
 acetylcholine receptor antagonists)  
 RN 850607-53-3 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile, 8-methyl- $\alpha,\alpha$ -  
 diphenyl-, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



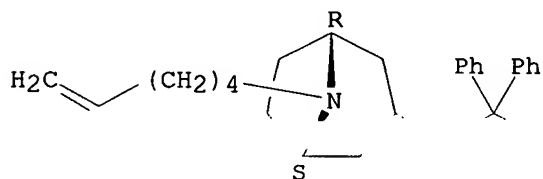
RN 852435-95-1 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile,  $\alpha,\alpha$ -diphenyl-8-  
 (phenylmethyl)-, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 852435-97-3 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile, 8-(5-hexenyl)- $\alpha,\alpha$ -  
 diphenyl-, (3-endo)- (9CI) (CA INDEX NAME)

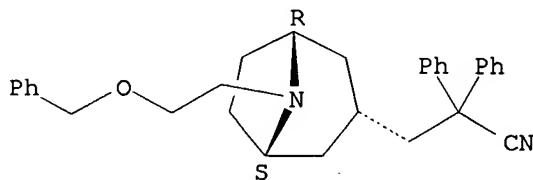
Relative stereochemistry.





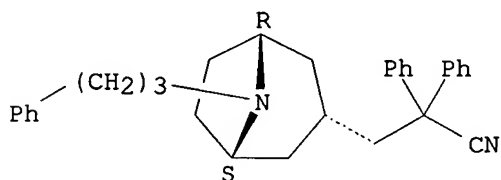
RN 852435-98-4 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile,  $\alpha,\alpha$ -diphenyl-8-[2-(phenylmethoxy)ethyl]-, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



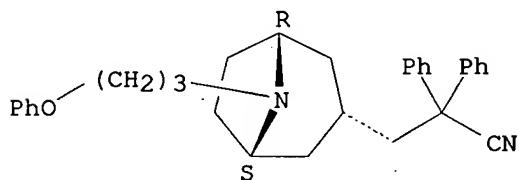
RN 852435-99-5 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile,  $\alpha,\alpha$ -diphenyl-8-(3-phenylpropyl)-, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 852436-00-1 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile, 8-(3-phenoxypropyl)- $\alpha,\alpha$ -diphenyl-, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L5 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:369284 CAPLUS  
DOCUMENT NUMBER: 142:423894  
TITLE: 8-Methyl-8-azabicyclo[3.2.1]octane derivative  
muscarinic acetylcholine receptor antagonists, their  
preparation, and their therapeutic use  
INVENTOR(S): Busch-Petersen, Jakob; Palovich, Michael R.; Wan,  
Zehong; Yan, Hongxing; Zhu, Chongjie  
PATENT ASSIGNEE(S): Glaxo Group Limited, UK  
SOURCE: PCT Int. Appl., 29 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005037280	A1	20050428	WO 2004-US33638	20041012
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004281724	A1	20050428	AU 2004-281724	20041012
CA 2542657	A1	20050428	CA 2004-2542657	20041012
EP 1677795	A1	20060712	EP 2004-794886	20041012

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR

BR 2004015361	A	20061212	BR 2004-15361	20041012
CN 1893948	A	20070110	CN 2004-80037266	20041012
JP 2007508390	T	20070405	JP 2006-535591	20041012
US 2007105895	A1	20070510	US 2006-575839	20060413
NO 2006002042	A	20060508	NO 2006-2042	20060508

PRIORITY APPLN. INFO.:

US 2003-511009P	P	20031014
WO 2004-US33638	W	20041012

OTHER SOURCE(S): MARPAT 142:423894

AB 8-Methyl-8-azabicyclo[3.2.1]octane derivative muscarinic acetylcholine receptor antagonists are provided. Compound preparation is included. Compds. of

the invention may be used to treat muscarinic acetylcholine receptor-mediated diseases.

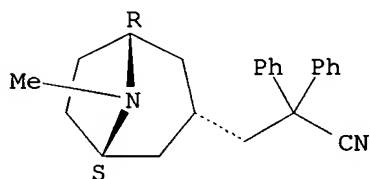
IT 850607-53-3P 850607-55-5P 850607-65-7P  
 850607-66-8P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (azabicyclooctane derivative muscarinic acetylcholine receptor antagonists, preparation, and therapeutic use)

RN 850607-53-3 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile, 8-methyl- $\alpha,\alpha$ -diphenyl-, (3-endo)- (9CI) (CA INDEX NAME)

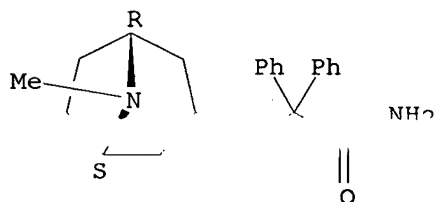
Relative stereochemistry.



RN 850607-55-5 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-propanamide, 8-methyl- $\alpha,\alpha$ -diphenyl-, (3-endo)- (9CI) (CA INDEX NAME)

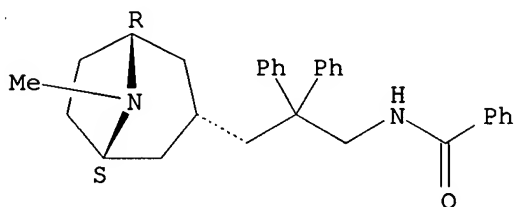
Relative stereochemistry.



RN 850607-65-7 CAPLUS

CN Benzamide, N-[3-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-2,2-diphenylpropyl]- (9CI) (CA INDEX NAME)

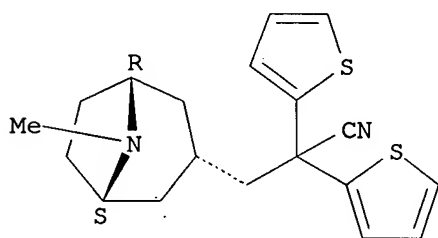
Relative stereochemistry.



RN 850607-66-8 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-propanenitrile, 8-methyl- $\alpha,\alpha$ -di-2-thienyl-, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 850607-52-2P 850607-54-4P 850607-56-6P  
850607-57-7P 850607-58-8P 850607-59-9P  
850607-60-2P 850607-61-3P 850607-62-4P  
850607-63-5P 850607-64-6P 850607-67-9P  
850607-68-0P 850607-69-1P 850607-70-4P  
850607-71-5P

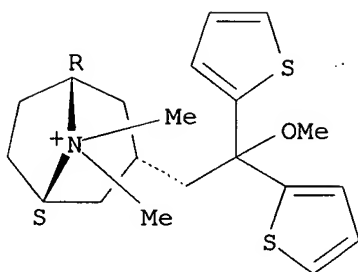
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(azabicyclooctane derivative muscarinic acetylcholine receptor antagonists, preparation, and therapeutic use)

RN 850607-52-2 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-methoxy-2,2-di-2-thienylethyl)-8,8-dimethyl-, iodide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

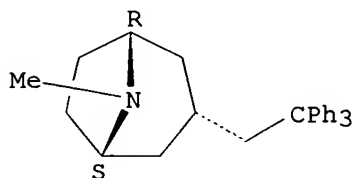


● I<sup>-</sup>

RN 850607-54-4 CAPLUS

CN 8-Azabicyclo[3.2.1]octane, 8-methyl-3-(2,2,2-triphenylethyl)-, (3-endo)-  
(9CI) (CA INDEX NAME)

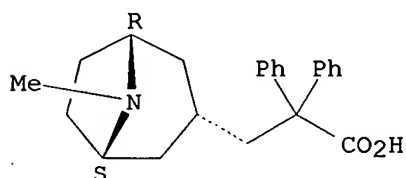
Relative stereochemistry.



RN 850607-56-6 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-propanoic acid, 8-methyl- $\alpha,\alpha$ -  
diphenyl-, (3-endo)- (9CI) (CA INDEX NAME)

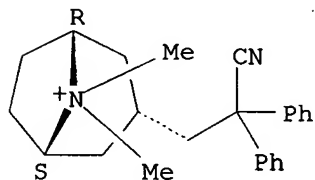
Relative stereochemistry.



RN 850607-57-7 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8,8-dimethyl-,  
iodide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

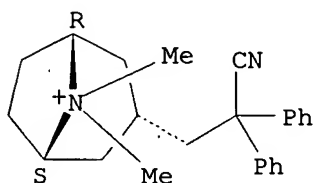


● I<sup>-</sup>

RN 850607-58-8 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-diphenylethyl)-8,8-dimethyl-,  
bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

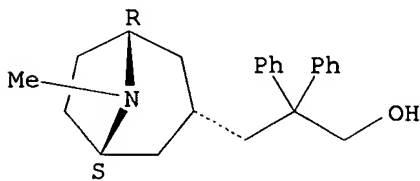


● Br<sup>-</sup>

RN 850607-59-9 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-propanol, 8-methyl- $\beta,\beta$ -diphenyl-,  
(3-endo)- (9CI) (CA INDEX NAME)

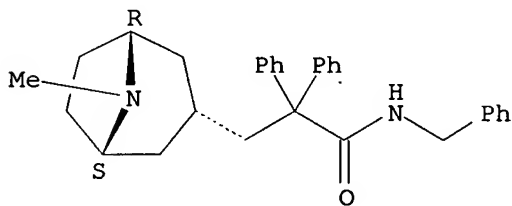
Relative stereochemistry.



RN 850607-60-2 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-propanamide, 8-methyl- $\alpha,\alpha$ -diphenyl-  
N-(phenylmethyl)-, (3-endo)- (9CI) (CA INDEX NAME)

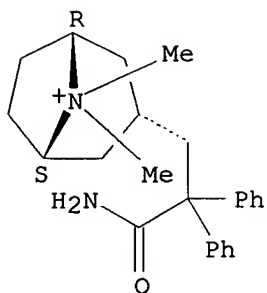
Relative stereochemistry.



RN 850607-61-3 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(3-amino-3-oxo-2,2-diphenylpropyl)-8,8-  
dimethyl-, iodide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

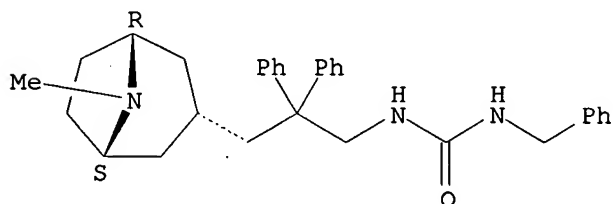


● I<sup>-</sup>

RN 850607-62-4 CAPLUS

CN Urea, N-[3-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-2,2-diphenylpropyl]-N'-(phenylmethyl)- (9CI) (CA INDEX NAME)

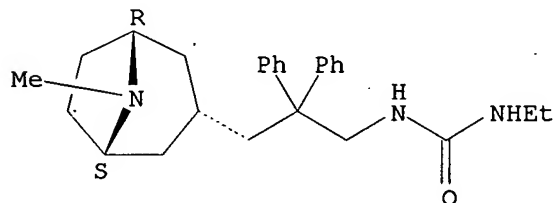
Relative stereochemistry.



RN 850607-63-5 CAPLUS

CN Urea, N-ethyl-N'-[3-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-2,2-diphenylpropyl]- (9CI) (CA INDEX NAME)

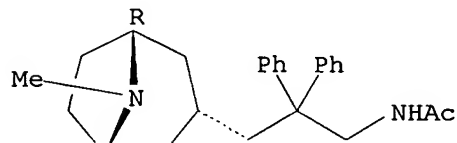
Relative stereochemistry.



RN 850607-64-6 CAPLUS

CN Acetamide, N-[3-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-2,2-diphenylpropyl]- (9CI) (CA INDEX NAME)

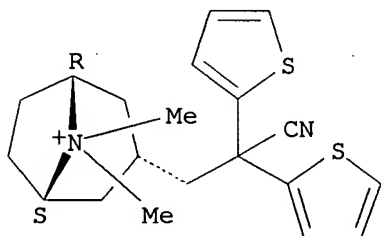
Relative stereochemistry.



RN 850607-67-9 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyano-2,2-di-2-thienylethyl)-8,8-dimethyl-, iodide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

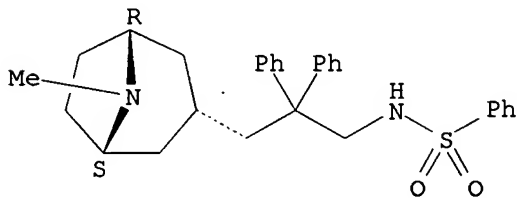


● I<sup>-</sup>

RN 850607-68-0 CAPLUS

CN Benzenesulfonamide, N-[3-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-2,2-diphenylpropyl]- (9CI) (CA INDEX NAME)

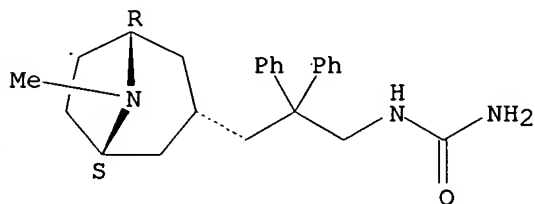
Relative stereochemistry.



RN 850607-69-1 CAPLUS

CN Urea, [3-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-2,2-diphenylpropyl]- (9CI) (CA INDEX NAME)

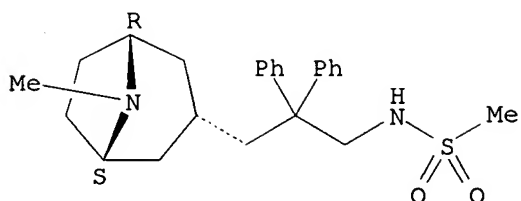
Relative stereochemistry.



RN 850607-70-4 CAPLUS

CN Methanesulfonamide, N-[3-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-2,2-diphenylpropyl]- (9CI) (CA INDEX NAME)

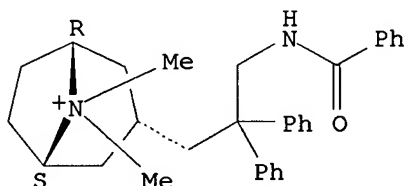
Relative stereochemistry.



RN 850607-71-5 CAPLUS

CN 8-Azabicyclo[3.2.1]octane, 3-[3-(benzoylamino)-2,2-diphenylpropyl]-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● Br<sup>-</sup>

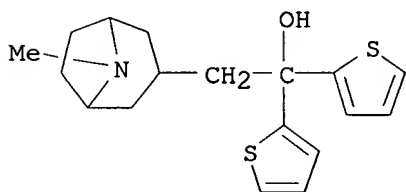
IT 101781-55-9 850607-73-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(azabicyclooctane derivative muscarinic acetylcholine receptor antagonists, preparation, and therapeutic use)

RN 101781-55-9 CAPLUS

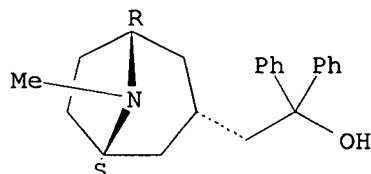
CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl- $\alpha,\alpha$ -di-2-thienyl- (9CI) (CA INDEX NAME)



RN 850607-73-7 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl- $\alpha,\alpha$ -diphenyl-, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 850607-74-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT



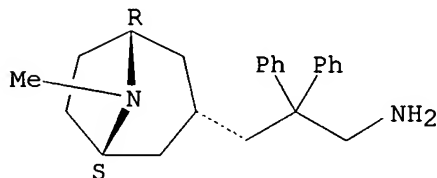
(Reactant or reagent)

(azabicyclooctane derivative muscarinic acetylcholine receptor antagonists,  
preparation, and therapeutic use)

RN 850607-74-8 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-propanamine, 8-methyl- $\beta,\beta$ -diphenyl-,  
(3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:99316 CAPLUS

DOCUMENT NUMBER: 142:183475

TITLE: Muscarinic acetylcholine receptor antagonists

INVENTOR(S): Belmonte, Kristen E.; Busch-Petersen, Jakob; Laine,  
Dramane; Palovich, Michael R.

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005009362	A2	20050203	WO 2004-US23041	20040716
WO 2005009362	A3	20050407		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004259238	A1	20050203	AU 2004-259238	20040716
CA 2532433	A1	20050203	CA 2004-2532433	20040716
EP 1648461	A2	20060426	EP 2004-778509	20040716
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR			
CN 1822839	A	20060823	CN 2004-80020652	20040716
BR 2004012537	A	20060919	BR 2004-12537	20040716
US 2006178396	A1	20060810	US 2006-565048	20060117
NO 2006000777	A	20060411	NO 2006-777	20060217
PRIORITY APPLN. INFO.:			US 2003-487982P	P 20030717

OTHER SOURCE(S): MARPAT 142:183475

AB Muscarinic acetylcholine receptor antagonists, e.g., (3-endo)-3-(2-hydroxy-2,2-diphenylethyl)-8,8-dimethyl-8-azoniabicyclo[3.2.1]octane bromide and

methods of using them are provided. In addition a pharmaceutical composition for

the treatment of muscarinic acetylcholinereceptor-mediated diseases comprising the above compound is disclosed.

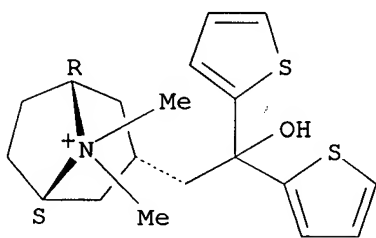
IT 90114-71-9 102133-77-7 106655-98-5  
106713-93-3 106954-22-7 834882-84-7  
834882-85-8

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(muscarinic acetylcholine receptor antagonists)

RN 90114-71-9 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-hydroxy-2,2-di-2-thienylethyl)-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

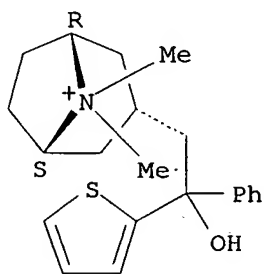


● Br<sup>-</sup>

RN 102133-77-7 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-[2-hydroxy-2-phenyl-2-(2-thienyl)ethyl]-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

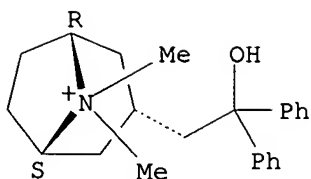


● Br<sup>-</sup>

RN 106655-98-5 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-hydroxy-2,2-diphenylethyl)-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

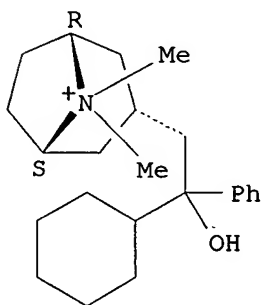


● Br<sup>-</sup>

RN 106713-93-3 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-cyclohexyl-2-hydroxy-2-phenylethyl)-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

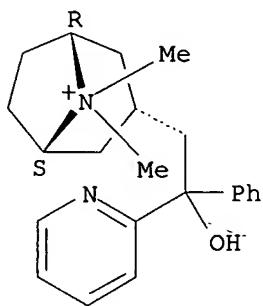


● Br<sup>-</sup>

RN 106954-22-7 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-[2-hydroxy-2-phenyl-2-(2-pyridinyl)ethyl]-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

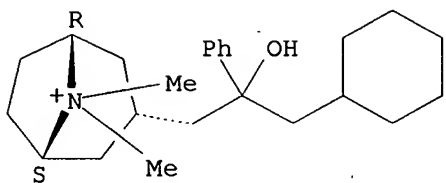


● Br<sup>-</sup>

RN 634662-64-7 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(3-cyclohexyl-2-hydroxy-2-phenylpropyl)-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● Br<sup>-</sup>

RN 834882-85-8 CAPLUS

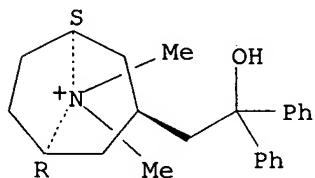
CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-hydroxy-2,2-diphenylethyl)-8,8-dimethyl-, (3-endo)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 805224-99-1

CMF C23 H30 N O

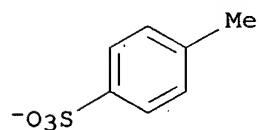
Relative stereochemistry.



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



L5 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:164586 CAPLUS

DOCUMENT NUMBER: 120:164586

TITLE: Synthesis of anticholinergics of 3-substituted tropane derivatives

AUTHOR(S): Wu, Peijin; Ran, Yunzhang; Wen, Guangling; Zhang, Qikai

CORPORATE SOURCE: Inst. Pharmacol. Toxicol., Acad. Mil. Med. Sci., Beijing 100850, P.R. China

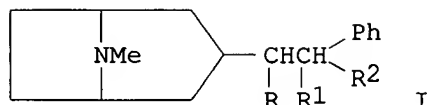
SOURCE: Zhongguo Yaowu Huaxue Zazhi (1993), 3(1), 23-6

CODEN: ZYHZEJ; ISSN: 1005-0108

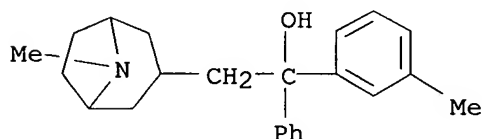
DOCUMENT TYPE: Journal

LANGUAGE:  
GI

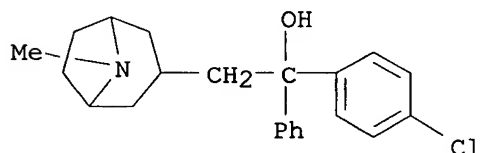
Chinese



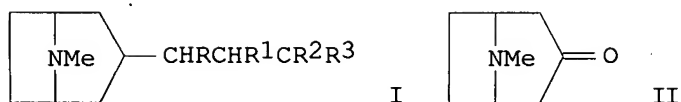
AB Title compds. I ( R, R1 = H, OH; RR1 = bond; R2 = 3-MeC6H4, 4-ClC6H4) were prepared starting from Et 3-tropanylacetate. I showed anticholinergic activity in mice.  
IT 153307-14-3P 153307-15-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and anticholinergic activity of)  
RN 153307-14-3 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl- $\alpha$ -(3-methylphenyl)- $\alpha$ -phenyl- (9CI) (CA INDEX NAME)



RN 153307-15-4 CAPLUS  
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha$ -(4-chlorophenyl)-8-methyl- $\alpha$ -phenyl- (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1985:505186 CAPLUS  
DOCUMENT NUMBER: 103:105186  
TITLE: Studies on anticholinergics: synthesis of  
3-substituted tropane derivatives  
AUTHOR(S): Ran, Yunzhang; Wu, Peijin; Wen, Guangling; Zhang,  
Qikai  
CORPORATE SOURCE: Inst. Pharmacol. Toxicol., Acad. Milit. Med. Sci.,  
Beijing, Peop. Rep. China  
SOURCE: Yaoxue Xuebao (1984), 19(5), 361-6  
CODEN: YHHPAL; ISSN: 0513-4870  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
GI



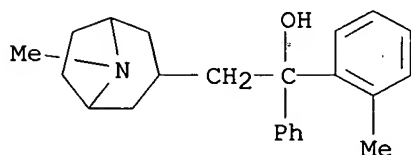
AB Tropanes I (R = H, R1 = OH, R2 = Ph, 2-MeC6H4, 4-MeC6H4, 4-MeOC6H4, 2-pyrrolyl, cyclopentyl, R3 = H, Ph, 2-MeC6H4, cyclopentyl; RR1 = bond, R2,R3 = same as above; R = R1 = H, R2,R3 = same as above) were prepared from 3-tropanone (II). Most of I showed anticholinergic activity in mice. Structure-activity relationships was discussed.

IT 98042-84-3P 98042-85-4P 98042-86-5P  
98042-87-6P 98042-88-7P 98042-89-8P  
98042-90-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, dehydration, and anticholinergic activity of)

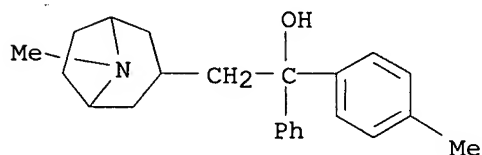
RN 98042-84-3 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl- $\alpha$ -(2-methylphenyl)- $\alpha$ -phenyl- (9CI) (CA INDEX NAME)



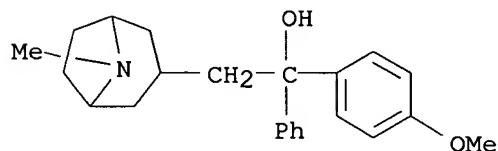
RN 98042-85-4 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl- $\alpha$ -(4-methylphenyl)- $\alpha$ -phenyl- (9CI) (CA INDEX NAME)



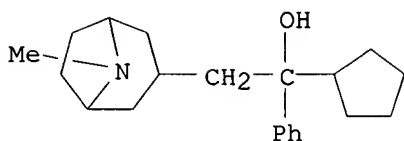
RN 98042-86-5 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha$ -(4-methoxyphenyl)-8-methyl- $\alpha$ -phenyl- (9CI) (CA INDEX NAME)

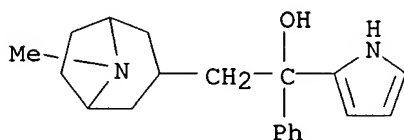


RN 98042-87-6 CAPLUS

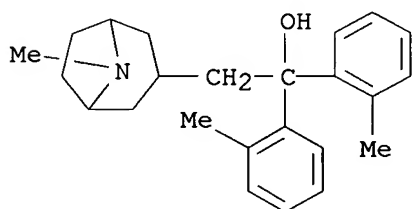
CN 8-Azabicyclo[3.2.1]octane-3-ethanol,  $\alpha$ -cyclopentyl-8-methyl- $\alpha$ -phenyl- (9CI) (CA INDEX NAME)



RN 98042-88-7 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl-α-phenyl-α-1H-pyrrol-2-yl- (9CI) (CA INDEX NAME)

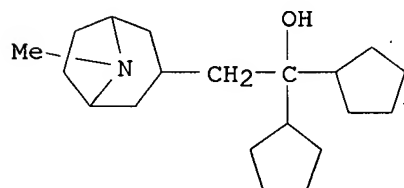


RN 98042-89-8 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl-α,α-bis(2-methylphenyl)-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

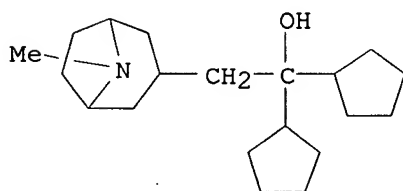
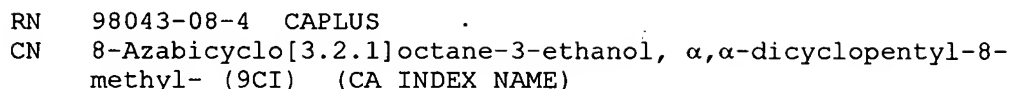
RN 98042-90-1 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-ethanol, α,α-dicyclopentyl-8-methyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

IT 98043-07-3P 98043-08-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (Synthesis, salt formation, and antitubercular activity of 8-azabicyclo[3.2.1]octane derivatives)

RN 98043-07-3 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl-α,α-bis(2-methylphenyl)- (9CI) (CA INDEX NAME)



214.0-15.5°, MeBr 309-10°, citrate 0.001, MeBr salt 0.1; II,



$\beta$ , O, Ph, Ph, 86, 182-4°, --, --, HCl 325°, picrate  
 230-1°, HCl salt 0.001; II,  $\alpha$ , 1, Ph, Ph, 76, 147-8°,  
 --, --, HCl 235°, HBr 230°, MeBr 282°, HCl salt 1,  
 MeBr salt 0.1-1.0; II,  $\beta$ , 1, Ph, Ph, --, 178-9°, --, --, HCl  
 253.5°, HCl salt 0.001; II,  $\alpha$ , 1, cyclohexyl, Ph, 90,  
 139.0-40.5°, --, --, HCl 254-5°, MeBr 262°, HCl salt  
 0.1; II,  $\alpha$ , 1, 2-cyclohexylethyl, Ph, above 66, 104-6°, --, --,  
 HCl 215-16°, citrate 134-6°, MeBr 263-5°, HCl salt  
 0.01; II,  $\alpha$ , 1, Ph, Et, 12, --, --, --, HCl 237°, HCl salt  
 0.01-0.10; II,  $\alpha$ , 1, 2-pyridyl, Ph, 64, 117.5-18.5°, --, --,  
 HI 194-6°, dipicrate 191-2°, MeBr 268°, HI salt 0.01;  
 II,  $\alpha$ , 1, Ph, 2-thienyl, 73, 137.5-9.0°, --, --, maleate  
 145-6°, MeBr 256°, maleate 1; II,  $\alpha$ , 1, 2-thienyl,  
 2-thienyl, 69, 138-40°, --, --, HOAc 189-90°, MeBr  
 245.5°, HOAc salt 1; II,  $\alpha$ , 2, Ph, Ph, 92, 142-3°, --,  
 --, HCl 249-50°, MeBr 299°, HCl salt 0.01, MeBr salt 0.1;  
 III, --, --, Ph, Ph, --, --, --, --, HCl 275-8°, picrate 237-8°,  
 MeBr 281-5°, HCl salt 0.01, MeBr salt 0.1-1.0; III, --, --,  
 2-thienyl, 2-thienyl, 76 --, --, --, HCl 224-5°, --; IV,  $\alpha$ , --,  
 Ph, Ph, 100, 111-12°, --, --, HCl 217-18°, picrate  
 186-8°, MeBr 286° HCl salt 1-10, MeBr salt 0.1-1.0; IV,  
 $\alpha$  --, cyclohexyl, Ph, 95, --, --, --, HCl 195-6°, HI  
 222.5-4.0°, MeBr 250-5° HCl salt 1; IV,  $\alpha$ , --, Ph,  
 Et, --, --, --, --, HCl 214-15°, --; IV,  $\alpha$ , --, Ph, 2-pyridyl,  
 78, 97.5-9.5, --, -- tartrate 165-7°, picrate 204-6°, MeBr  
 227-8°, --; IV,  $\alpha$ , --, Ph, 2-thienyl, 96, 65-70, --, --, HCl  
 194-200° tartrate 174-5° picrate 209-10°, MeBr  
 258-9°, tartrate 0.1-1.0; IV,  $\alpha$ , --, 2-thienyl, 2-thienyl,  
 76, --, --, --, HCl 230-2°, picrate 190-2°, MeBr 252-3°,  
 HCl salt 1; V,  $\alpha$ , --, Ph, Ph, --, --, --, citrate 174°, MeBr  
 280°, citrate 0.001, MeBr salt 0.01; VI,  $\alpha$ , O, Me, Me, -- --,  
 109-11°/29, 1.4739, HCl 194- 6% MeI 224-6°, --; VI,  $\alpha$ ,  
 O, Ph, Ph, --, 70-2°, --, --, HCl above 310°, MeBr  
 277-8°, HCl 0.01, MeBr salt 0.1; VI,  $\alpha$ , 1, Ph, Ph, --, --, --, --,  
 HCl 244-5°, MeBr 257-8° HCl salt 1-10, MeBr 1; VI,  $\alpha$ ,  
 1, cyclohexyl, Ph, --, --, --, --, HCl 167.0-8.5°, citrate  
 153-5°, picrate 140-1°, MeBr 259-60°, citrate  
 0.1-1.0; VI,  $\alpha$ , 1, 2-cyclohexylethyl, Ph, --, --, --, --, HCl  
 198-200°. --; VI,  $\alpha$ , 1, Ph, 2-pyridyl, --, --, --, --, tartrate  
 78-80° picrate 201-3°, --; and VI,  $\alpha$ , 2, Ph,  
 Ph, --, --, --, --, citrate 170°, MeBr 277°, citrate  
 0.001-0.010, MeBr salt 0.01.

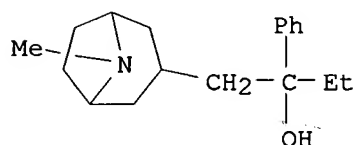
IT 88781-37-7P, 3 $\alpha$ -Tropaneethanol,  $\alpha$ -ethyl- $\alpha$ -phenyl-  
 , hydrochloride 90114-71-9P, 8-Azoniabicyclo[3.2.1]octane,  
 3-(2-hydroxy-2,2-di-2-thienylethyl)-8,8-dimethyl-, bromide  
 95131-86-5P, 3 $\alpha$ -Tropaneethanol,  $\alpha$ , $\alpha$ -diphenyl-  
 100167-89-3P, 3 $\alpha$ -Tropaneethanol,  $\alpha$ , $\alpha$ -di-2-  
 thienyl- 102133-77-7P, 8-Azoniabicyclo[3.2.1]octane,  
 3-[2-hydroxy-2-phenyl-2-(2-thienyl)ethyl]-8,8-dimethyl-, bromide  
 104038-18-8P, 3 $\alpha$ -Tropaneethanol,  $\alpha$ -cyclohexyl- $\alpha$ -  
 phenyl- 104038-19-9P, 3 $\alpha$ -Tropaneethanol,  
 $\alpha$ -cyclohexyl- $\alpha$ -phenyl-, hydrochloride 106172-79-6P,  
 3 $\alpha$ -Tropaneethanol,  $\alpha$ , $\alpha$ -di-2-thienyl-, acetate  
 106302-20-9P, 3 $\alpha$ -Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-  
 thienyl- 106655-98-5P, 8-Azoniabicyclo[3.2.1]octane,  
 3-(2-hydroxy-2,2-diphenylethyl)-8,8-dimethyl-, bromide  
 106954-22-7P, 8-Azoniabicyclo[3.2.1]octane, 3-[2-hydroxy-2-phenyl-  
 2-(2-pyridinyl)ethyl]-8,8-dimethyl-, bromide 107136-74-3P,  
 3 $\alpha$ -Tropaneethanol,  $\alpha$ -(2-ethylcyclohexyl)- $\alpha$ -phenyl-,  
 hydrochloride 107136-75-4P, 3 $\alpha$ -Tropaneethanol,  
 $\alpha$ -(2-ethylcyclohexyl)- $\alpha$ -phenyl- 107137-11-9P,  
 3 $\alpha$ -Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-thienyl-, maleate  
 107307-44-8P, 3 $\alpha$ -Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-

pyridyl- 107307-45-9P, 3 $\alpha$ -Tropaneethanol,  
 $\alpha$ -phenyl- $\alpha$ -2-pyridyl-, dipicrate 107422-64-0P,  
 3 $\alpha$ -Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-pyridyl-, hydriodide  
 888716-34-5P, 3 $\beta$ -Tropaneethanol,  $\alpha,\alpha$ -diphenyl-,  
 hydrochloride 888716-35-6P, 3 $\beta$ -Tropaneethanol,  
 $\alpha,\alpha$ -diphenyl-

RL: PREP (Preparation)  
 (preparation of)

RN 88781-37-7 CAPLUS

CN 3 $\alpha$ -Tropaneethanol,  $\alpha$ -ethyl- $\alpha$ -phenyl-, hydrochloride  
 (7CI) (CA INDEX NAME)

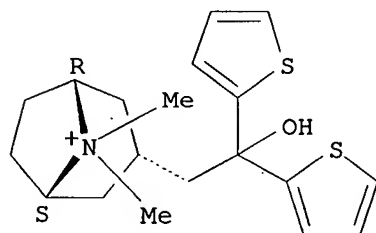


● HCl

RN 90114-71-9 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-hydroxy-2,2-di-2-thienylethyl)-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

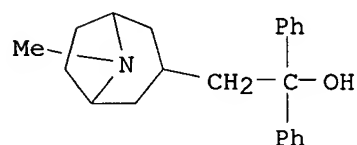
Relative stereochemistry.



● Br<sup>-</sup>

RN 95131-86-5 CAPLUS

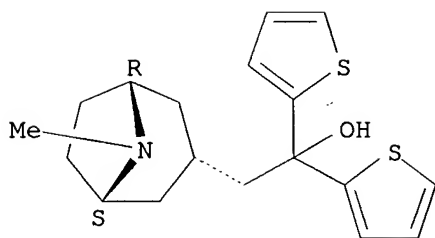
CN 3-Tropaneethanol,  $\alpha,\alpha$ -diphenyl- (6CI, 7CI) (CA INDEX NAME)



RN 100167-89-3 CAPLUS

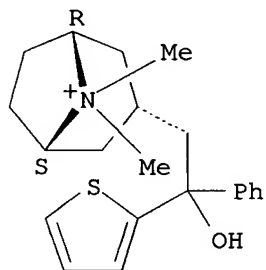
CN 3 $\alpha$ -Tropaneethanol,  $\alpha,\alpha$ -di-2-thienyl- (7CI) (CA INDEX NAME)

Relative stereochemistry.



RN 102133-77-7 CAPLUS  
 CN 8-Azoniabicyclo[3.2.1]octane, 3-[2-hydroxy-2-phenyl-2-(2-thienyl)ethyl]-  
 8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

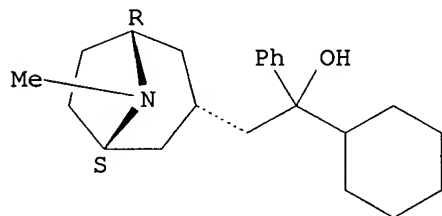
Relative stereochemistry.



● Br<sup>-</sup>

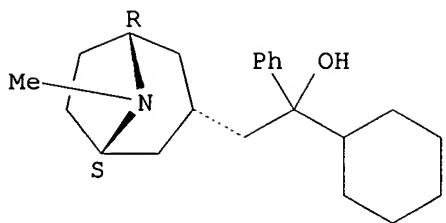
RN 104038-18-8 CAPLUS  
 CN 3α-Tropaneethanol, α-cyclohexyl-α-phenyl- (7CI) (CA  
 INDEX NAME)

Relative stereochemistry.



RN 104038-19-9 CAPLUS  
 CN 3α-Tropaneethanol, α-cyclohexyl-α-phenyl-, hydrochloride  
 (7CI) (CA INDEX NAME)

Relative stereochemistry.

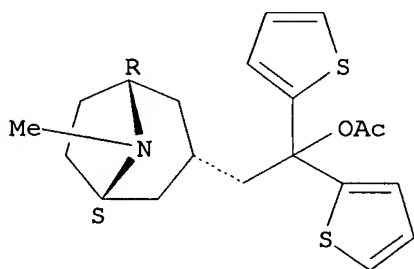


● HCl

RN 106172-79-6 CAPLUS

CN 3 $\alpha$ -Tropaneethanol,  $\alpha,\alpha$ -di-2-thienyl-, acetate (7CI) (CA INDEX NAME)

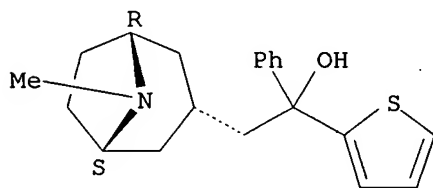
Relative stereochemistry.



RN 106302-20-9 CAPLUS

CN 3 $\alpha$ -Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-thienyl- (7CI) (CA INDEX NAME)

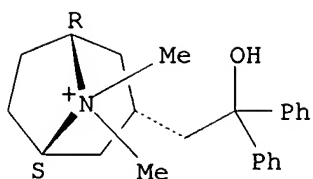
Relative stereochemistry.



RN 106655-98-5 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-(2-hydroxy-2,2-diphenylethyl)-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

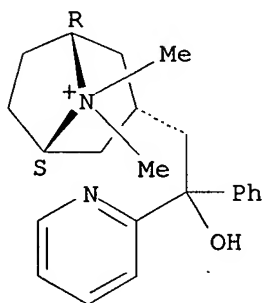


● Br<sup>-</sup>

RN 106954-22-7 CAPLUS

CN 8-Azoniabicyclo[3.2.1]octane, 3-[2-hydroxy-2-phenyl-2-(2-pyridinyl)ethyl]-8,8-dimethyl-, bromide, (3-endo)- (9CI) (CA INDEX NAME)

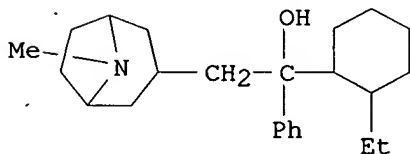
Relative stereochemistry.



● Br<sup>-</sup>

RN 107136-74-3 CAPLUS

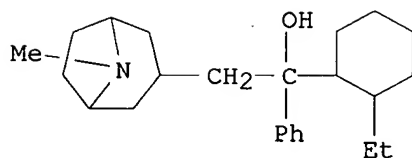
CN 3-Tropaneethanol,  $\alpha$ -(2-ethylcyclohexyl)- $\alpha$ -phenyl-, hydrochloride (7CI) (CA INDEX NAME)



● HCl

RN 107136-75-4 CAPLUS

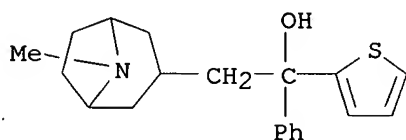
CN 3-Tropaneethanol,  $\alpha$ -(2-ethylcyclohexyl)- $\alpha$ -phenyl- (7CI) (CA INDEX NAME)



RN 107157-11-9 CAPLUS  
 CN 3α-Tropaneethanol, α-phenyl-α-2-thienyl-, maleate (7CI)  
 (CA INDEX NAME)

CM 1

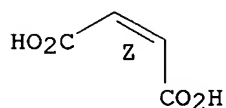
CRN 102239-31-6  
 CMF C20 H25 N O S



CM 2

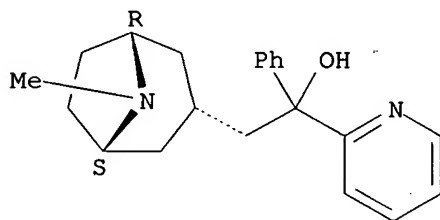
CRN 110-16-7  
 CMF C4 H4 O4

Double bond geometry as shown.



RN 107307-44-8 CAPLUS  
 CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl-α-phenyl-α-2-pyridinyl-, endo- (9CI) (CA INDEX NAME)

Relative stereochemistry.



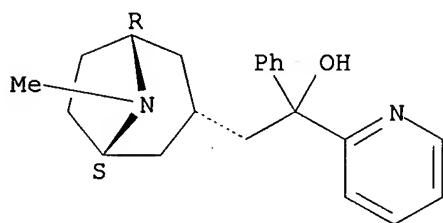
RN 107307-45-9 CAPLUS  
 CN 3α-Tropaneethanol, α-phenyl-α-2-pyridyl-, dipicrate  
 (7CI) (CA INDEX NAME)

CM 1

CRN 107307-44-8

CMF C21 H26 N2 O

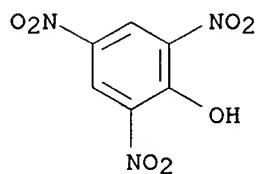
Relative stereochemistry.



CM 2

CRN 88-89-1

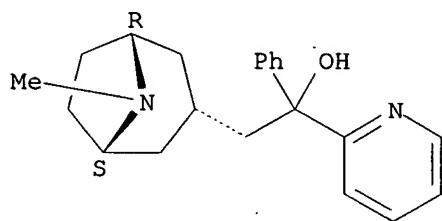
CMF C6 H3 N3 O7



RN 107422-64-0 CAPLUS

CN 3α-Tropaneethanol, α-phenyl-α-2-pyridyl-, hydriodide  
(7CI) (CA INDEX NAME)

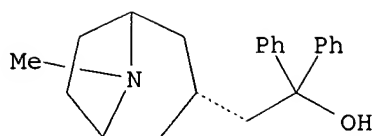
Relative stereochemistry.



●x HI

RN 888716-34-5 CAPLUS

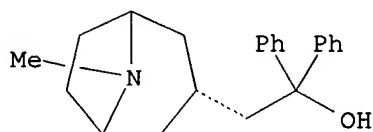
CN 3β-Tropaneethanol, α,α-diphenyl-, hydrochloride (7CI)  
(CA INDEX NAME)



● HCl

RN 888716-35-6 CAPLUS

CN 3β-Tropaneethanol, α,α-diphenyl- (7CI) (CA INDEX NAME)



L5 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1958:93024 CAPLUS

DOCUMENT NUMBER: 52:93024

ORIGINAL REFERENCE NO.: 52:16402b-f

TITLE: 8-Alkyltropene derivatives

INVENTOR(S): Zirkle, Charles L.

PATENT ASSIGNEE(S): Smith, Kline & French Laboratories

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 2800482		19570723	US 1955-519650	19550701
AB	<p>3-Benzhydrylidene-tropane picrate m. 237-8° (aqueous alc.); methobromide, m. 281-5° (iso-PrOH-Me<sub>2</sub>CO); etho(ethyl sulfate), white solid. Di(2-thienyl)-3-tropanylcarbinol (0.5 g.) in CHCl<sub>3</sub> treated with dry HCl until strongly acid gave 2-[di(2-thienyl)methylidene]tropane-HCl, m. 224-5° (alc. Et<sub>2</sub>O). 1,1-Di(2-thienyl)-3-tropaneethanol (1 g.), 2 g. (CO<sub>2</sub>H)<sub>2</sub>, and 3 ml. H<sub>2</sub>O refluxed 2 hrs. gave 1,1-di(2-thienyl)-2-(3-tropanyl)ethylene, m. 74-6° (ligroine); picrate, m. 190-2° (aqueous Me<sub>2</sub>CO); HCl salt, m. 230-2° (alc. Et<sub>2</sub>O); methobromide, m. 252-3°. 1,1-Diphenyl-2-(3-tropanyl)ethylene methobromide, m. 286° (alc.); maleate; metho-p-toluene-sulfonate, white solid. 1-Phenyl-1-(2-thienyl)-3-tropaneethanol (9.7 g.), 19.4 g. (CO<sub>2</sub>H)<sub>2</sub>, and 29 ml. H<sub>2</sub>O refluxed 2 hrs. and the mixture made alkaline gave 1-phenyl-1-(2-thienyl)-2-(3-tropanyl)ethylene, m. 69-72°; picrate, m. 209-10°; tartrate, m. 174-5° (alc.-Et<sub>2</sub>O); methobromide, m. 258-9° (alc.-Et<sub>2</sub>O). 1-Phenyl-1-(2-pyridyl)-2-(3-tropanyl)ethylene methobromide, m. 228-30° (alc.-Et<sub>2</sub>O); tartrate, m. 165-7° (alc.-Et<sub>2</sub>O). 1-(2-Cyclohexylethyl)-1-phenyl-3-tropaneethanol (1 g.) in 10 ml. AcOH and 3 ml. 37% HCl refluxed 0.5 hr. gave the dehydration product, λ 235 mμ, log ε 3.58. 1-Cyclohexyl-1-phenyl-2-(3-tropanyl)ethylene-HI, m. 222.5-4.0°; methobromide, m. 250-2° (alc.-Et<sub>2</sub>O); maleate; white solid. 1,1-Diphenyl-3-tropaneethanol (10 g.) in 50 ml. 37% HCl 1.5 hrs. at 100° gave 1,1-diphenyl-3-(3-tropane-1-propene), m. 59-60°, b<sub>0.4</sub> 170-3°; citrate, m. 174°. 1-(2-Pyridyl-1-p-tolyl-4-(3-</p>				

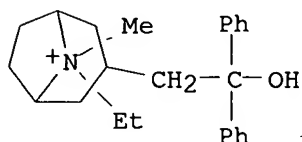


tropanyl)-1-butanol (0.5 g.) and 2 ml. 85% H2SO4 heated 15 min. at 155° gave 1-(2-pyridyl)-1-p-tolyl-4-(3-tropanyl)-1-butene. A similar dehydration of 1-cyclopentyl-1-phenyl-3-tropanebutanol with HCl gave the corresponding butene as the HCl salt; neutralization with NH4OH gave the free base as a yellow oil.

IT 124145-26-2P, 8-Ethyl-3-(2-hydroxy-2,2-diphenylethyl)tropanium ethyl sulfate  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 124145-26-2 CAPLUS  
 CN 8-Ethyl-3-(2-hydroxy-2,2-diphenylethyl)tropanium ethyl sulfate (6CI) (CA INDEX NAME)

CM 1

CRN 124145-25-1  
 CMF C24 H32 N O



CM 2

CRN 48028-76-8  
 CMF C2 H5 O4 S

Et-O-SO3<sup>-</sup>

L5 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

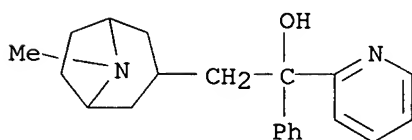
ACCESSION NUMBER: 1958:93023 CAPLUS  
 DOCUMENT NUMBER: 52:93023  
 ORIGINAL REFERENCE NO.: 52:16401g-i,16402a-b  
 TITLE: 8-Alkyl-nortropane derivatives  
 INVENTOR(S): Zirkle, Charles L.  
 PATENT ASSIGNEE(S): Smith, Kline & French Laboratories  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2800481		19570723	US 1955-519649	19550701

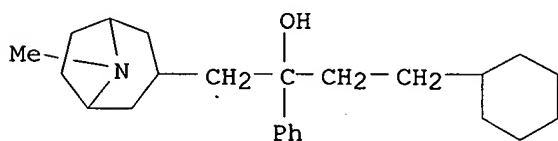
AB Me 3-tropanecarboxylate (10.1 g.), in 100 ml. Et2O stirred 1.5 hrs. at room temperature with PhLi gave diphenyl-3-tropanylcarbinol, m. 214-15° (aqueous MeOH); citrate, m. 112-18° (iso-PrOH-Et2O); methobromide, m. 309-10° (alc.). Et 3-tropaneacetate (I) (10 g.) in 20 ml. Et2O refluxed with PhLi and 11.8 g. thiophene in Et2O gave 1,1-di(2-thienyl 3-tropaneethanol, m. 138-40° (EtOAc); acetate, m. 189-90°; methobromide, m. 245.5° (alc.). 1,1-Diphenyl-3-tropaneethanol-HCl, m. 224-5° (alc. Et2O); methobromide, m. 282-3° (alc. Et2O). I with concentrated HCl gave 3-tropaneacetic acid-HCl (II), m. 174-4°. II (11 g.) refluxed with PhLi gave Ph 3-tropanylmethyl ketone (III), b0.2 138-41°. III (9 g.) stirred several hrs. at room temperature with PhLi

gave 1,1-diphenyl-3-tropaneethanol-HBr, m. 230°. III (10 g.) treated with PhLi and thiophene gave 1-phenyl-1-(2-thienyl)-3-tropaneethanol, m. 137.5-9.0°; maleate, m. 145-6° (alc.-Et2O); methobromide, m. 256° (alc.). 1-Phenyl-1-(2-pyridyl)-3-tropaneethanol-HI, m. 194-6°; methobromide, m. 268° (alc.). 1-Ethyl-1-phenyl-3-tropaneethanol-HCl, m. 237-7.5° (alc.). 1-Cyclohexyl-1-phenyl-3-tropaneethanol-HCl, m. 254-5° (alc.-Et2O); methobromide, m. 262° (alc.-Et2O). 2-Cyclohexylethyl 3-tropanylmethyl ketone picrate, m. 148-50°; 1-(2-cyclohexylethyl)-1-phenyl-3-tropaneethanol-HCl, m. 215-16°; citrate, m. 134-6° (Me2CO-MeOH); methobromide, m. 263-5°. II (3.7 g.) treated with SOCl2 gave the acid chloride HCl salt which treated with CH2N2 gave the diazomethyl 3-tropanylmethyl ketone and subsequent treatment with Ag2O oxide gave Et 3-tropanepropionate (IV). IV (18 g.) treated with PhLi as above gave 1,1-diphenyl-3-tropanepropanol, m. 141-2.5°; HCl salt, m. 249-50°; methobromide salt, m. 299°. Cyclopentyl 3-(3-tropanyl)propyl ketone (6.6 g.) treated with PhLi as above gave 1-cyclopentyl-1-phenyl-3-tropanebutanol. Diphenyl-3-tropanecarbinol etho(ethyl sulfate) was a white solid. 1,1-Diphenyl-3-tropaneethanol metho-p-toluenesulfonate, m. 172-4°; etho(ethyl sulfate), m. 234-5°; butobromide, m. 225-7°; butiodide, m. 227-9°. 1-Cyclohexyl-1-phenyl-2-(3-tropane)ethanol butyl bromide was a white solid.

IT 102470-52-0, 3-Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-pyridyl-  
103034-31-7, 3-Tropaneethanol,  $\alpha$ -(2-cyclohexylethyl)- $\alpha$ -phenyl-  
(derivs.)  
RN 102470-52-0 CAPLUS  
CN 3-Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-pyridyl- (6CI) (CA INDEX NAME)



RN 103034-31-7 CAPLUS  
CN 3-Tropaneethanol,  $\alpha$ -(2-cyclohexylethyl)- $\alpha$ -phenyl- (6CI) (CA INDEX NAME)

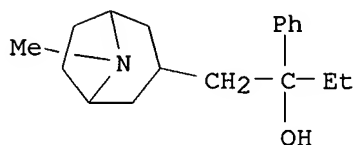


IT 88781-37-7P, 3-Tropaneethanol,  $\alpha$ -ethyl- $\alpha$ -phenyl-,  
hydrochloride 95131-86-5P, 3-Tropaneethanol,  
 $\alpha$ , $\alpha$ -diphenyl-, hydrohalides 101781-55-9P,  
3-Tropaneethanol,  $\alpha$ , $\alpha$ -di-2-thienyl- 102239-31-6P,  
3-Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-thienyl- 102239-71-4P  
, 3-Tropaneethanol,  $\alpha$ , $\alpha$ -di-2-thienyl-, acetate  
103757-37-5P, 3-Tropaneethanol,  $\alpha$ -cyclohexyl- $\alpha$ -phenyl-  
, hydrochloride 107157-11-9P, 3-Tropaneethanol,  
 $\alpha$ -phenyl- $\alpha$ -2-thienyl-, maleate 112717-86-9P,  
113222-03-2P, 3-(2-hydroxy-2,2-di-2-thienylethyl)- $\alpha$ -  
methyltropanium bromide 114863-60-4P, 3-( $\beta$ -Cyclohexyl-  
 $\beta$ -hydroxyphenethyl)-8-methyltropanium bromide 119016-27-2P,

3-(4-Cyclohexyl-2-hydroxy-2-phenylbutyl)-8-methyltropanium bromide  
 119640-59-4P, 8-Butyl-3-( $\beta$ -cyclohexyl- $\beta$ -  
 hydroxyphenethyl)tropanium bromide 124145-26-2P,  
 8-Ethyl-3-(2-hydroxy-2,2-diphenylethyl)tropanium ethyl sulfate  
 RL: PREP (Preparation)  
 (preparation of)

RN 88781-37-7 CAPLUS

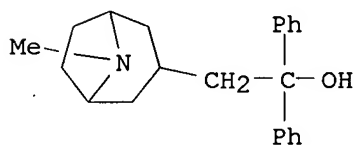
CN 3 $\alpha$ -Tropaneethanol,  $\alpha$ -ethyl- $\alpha$ -phenyl-, hydrochloride  
 (7CI) (CA INDEX NAME)



● HCl

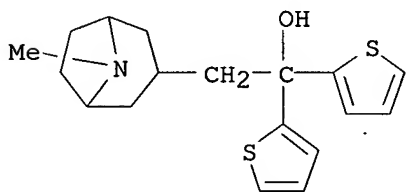
RN 95131-86-5 CAPLUS

CN 3-Tropaneethanol,  $\alpha,\alpha$ -diphenyl- (6CI, 7CI) (CA INDEX NAME)



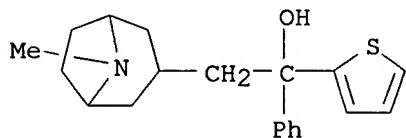
RN 101781-55-9 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-ethanol, 8-methyl- $\alpha,\alpha$ -di-2-thienyl-  
 (9CI) (CA INDEX NAME)



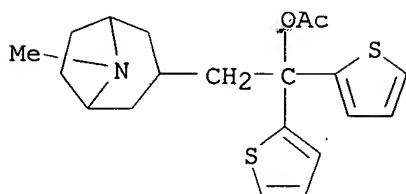
RN 102239-31-6 CAPLUS

CN 3-Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-thienyl- (6CI) (CA INDEX NAME)

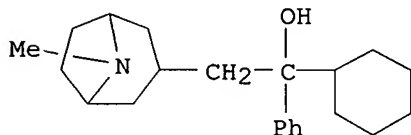


RN 102239-71-4 CAPLUS

CN 3-Tropaneethanol,  $\alpha,\alpha$ -di-2-thienyl- (6CI) (CA INDEX NAME)



RN 103757-37-5 CAPLUS  
 CN 3-Tropaneethanol,  $\alpha$ -cyclohexyl- $\alpha$ -phenyl-, hydrochloride (6CI)  
 (CA INDEX NAME)

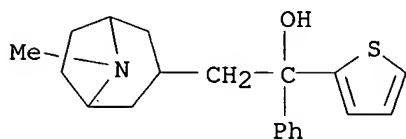


● HCl

RN 107157-11-9 CAPLUS  
 CN 3 $\alpha$ -Tropaneethanol,  $\alpha$ -phenyl- $\alpha$ -2-thienyl-, maleate (7CI)  
 (CA INDEX NAME)

CM 1

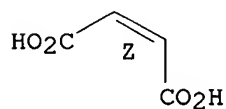
CRN 102239-31-6  
 CMF C20 H25 N O S



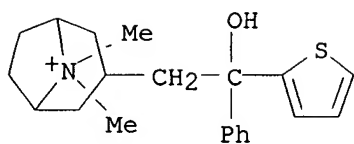
CM 2

CRN 110-16-7  
 CMF C4 H4 O4

Double bond geometry as shown.



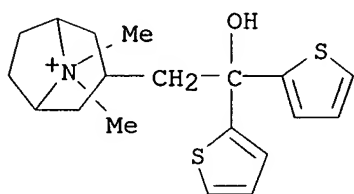
RN 112717-86-9 CAPLUS  
 CN 3-( $\beta$ -Hydroxy- $\beta$ -2-thienylphenethyl)-8-methyltropanium bromide  
 (6CI) (CA INDEX NAME)



● Br<sup>-</sup>

RN 113222-63-2 CAPLUS

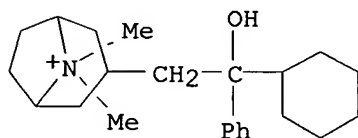
CN 3-(2-Hydroxy-2,2-di-2-thienylethyl)-8-methyltropanium bromide (6CI) (CA INDEX NAME)



● Br<sup>-</sup>

RN 114863-60-4 CAPLUS

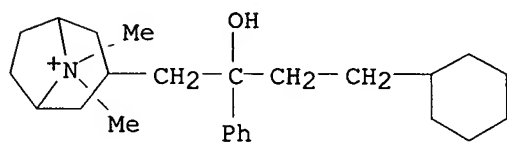
CN 3-(β-Cyclohexyl-β-hydroxyphenethyl)-8-methyltropanium bromide (6CI) (CA INDEX NAME)



● Br<sup>-</sup>

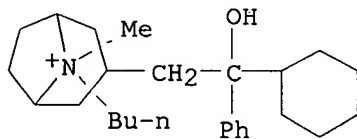
RN 119016-27-2 CAPLUS

CN 3-(4-Cyclohexyl-2-hydroxy-2-phenylbutyl)-8-methyltropanium bromide (6CI) (CA INDEX NAME)



● Br<sup>-</sup>

RN 119640-59-4 CAPLUS  
CN 8-Butyl-3-( $\beta$ -cyclohexyl- $\beta$ -hydroxyphenethyl)tropanium bromide  
(6CI) (CA INDEX NAME)

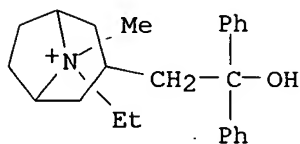


● Br<sup>-</sup>

RN 124145-26-2 CAPLUS  
CN 8-Ethyl-3-(2-hydroxy-2,2-diphenylethyl)tropanium ethyl sulfate (6CI) (CA  
INDEX NAME)

CM 1

CRN 124145-25-1  
CMF C24 H32 N O



CM 2

CRN 48028-76-8  
CMF C2 H5 O4 S

Et-O-SO<sub>3</sub><sup>-</sup>

L5 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1958:93020 CAPLUS  
DOCUMENT NUMBER: 52:93020  
ORIGINAL REFERENCE NO.: 52:16399b-i,16400a-i,16401a  
TITLE: 8-Alkylnortropane derivatives  
INVENTOR(S): Zirkle, Charles L.  
PATENT ASSIGNEE(S): Smith, Kline & French Laboratories  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2800476		1957/07/23	US 1955-519646	1955/07/01
AB		Some new physiologically active 3-substituted-8-alkylnortropanes, the nontoxic organic and inorg. salts, and the quaternary ammonium salts are		

described. Me 3-(3-hydroxytropene)carboxylate (10 g.) in 50 ml. Ac2O heated 4 hrs. at 100°, the excess Ac2O and AcOH removed in vacuo, the residue poured into H2O, extracted with Et2O, and the Et2O evaporated gave

Me

3-(3-acetoxytropene)-carboxylate (I), m. 66-7°, b15 162-5°.

I (29 g.) added dropwise during 7 min. to a vertical tube heated to 420° and filled with pieces of Pyrex tubing, the apparatus swept with N, the product dissolved in dilute HCl, extracted with Et2O, the aqueous acid solution

saturated with K2CO3, and the product separated gave Me 3-(2-tropene)carboxylate

(II), b15 131-4°, n25.5D 1.4998. II (13 g.) in 100 ml. MeOH hydrogenated over 5 g. Raney Ni at 50 lb./sq. in. at room temperature and the mixture distilled gave Me 3-tropanecarboxylate (III), b18 128-32°, n25D 1.4819. III (10.1 g.) in 100 ml. Et2O stirred 1.5 hrs. at room temperature

with

a solution of PhLi (from 34.5 g. PhBr and 3.5 g. Li) in 100 ml. Et2O, the mixture added to 150 ml. H2O, and the solid collected and purified gave diphenyl-3-tropanecarbinol (IV), m. 185.5-6.0° (EtOAc). IV (5.6 g.) in 20 ml. AcOH and 25 ml. dilute HCl refluxed 10 min. and evaporated to dryness gave 3-benzhydrylidene-tropane-HCl, m. 275-8° (alc.-Et2O); free base (V), a colorless oil. V (4 g.) in alc. hydrogenated over Raney Ni at 400 lb./sq. in. at 60° and the product chromatographed on Al2O3 gave 3-benzhydryltropane (VI), m. 70-2°. VI (1 g.) gave the HCl salt, unmelted below 310°; MeBr salt, m. 277-9°; etho(ethyl sulfate), white solid. Tropinone (13.9 g.), 11.3 g. NCCH2CO2Et, 1.6 g. NH4OAc, 7.3 g. AcOH, 20 ml. alc., and 0.6 g. Pd-C shaken under H at 50° and 60 lb./sq. in. gave Et α-cyano-3-tropaneacetate (VII), b0.3 116-18°, n24D 1.4942. VII (8 g.) in 30 ml. 37% HCl refluxed 13 hrs. and the crude 3-tropaneacetic acid-HCl esterified by leaving 3 days at room temperature in 50 ml. alc. with dry HCl gave Et 3-tropaneacetate (VIII), b2 104-5°, n25D 1.4774. VIII (42 g.) in 100 ml. Et2O similarly treated with PhLi gave 1,1-diphenyl-3-tropaneethanol (IX), m. 146.5-7.5° (EtOAc). IX (14.6 g.) in 29 ml. 37% HCl and 100 ml. AcOH refluxed 0.5 hr. gave 1,1-diphenyl-2-(3-tropanyl)ethylene (X), as the HCl salt, m. 217-18° (alc.-Et2O); free X, m. 109.5-10.0° (Me2CO). X (10 g.) in alc. hydrogenated over Raney Ni at 500 lb./sq. in. and 60° gave 1,1-diphenyl-2-(3-tropanyl)ethane, colorless oil; HCl salt, m. 244-5°; methobromide, m. 257-8° (alc.-Et2O); metho-p-toluenesulfonate, white solid; maleate, obtained by treating with maleic acid in alc. VIII in 37% HCl refluxed several hrs. gave 3-tropaneacetic acid-HCl (XI), m. 172-4° (MeOH-Et2O). XI (11 g.) similarly treated with PhLi followed by passage of HCl gave the HCl salt which when washed was reconverted to phenyl 3-tropanylmethyl ketone (XII), b0.2 138-41°. BuLi (from 3.7 g. BuCl and 0.7 g. Li) in 25 ml. Et2O treated slowly at -45° with 5.5 g. 2-bromopyridine in 10 ml. Et2O, the mixture stirred 10 min., and 2.5 g. XII in 30 ml. Et2O added slowly, the mixture stirred 15 min. at -15°, 50 ml. H2O added, the mixture stirred a further 15 min., a solid collected, the solid stirred with CHCl3 and H2O, and the CHCl3 layer removed, combined with the Et2O layer and evaporated gave 1-phenyl-1-(2-pyridyl)-3-tropaneethanol (XIII), m. 117-18.5° (EtOAc). XIII (1 g.) and 2 ml. 85% H2SO4 heated 15 min. at 155° and the solution made basic gave 1-phenyl-1-(2-pyridyl)-2-(3-tropanyl)ethylene (XIV), m. 97.5-9.5° (Me2CO). XIV 0.2 g.), 5 g. cyclohexene, and 0.3 g. 20% Pd-C refluxed 48 hrs. gave 1-phenyl-1-(2-pyridyl)-2-(3-tropanyl)ethane (XV) as a thick oil; picrate, m. 201-3° (aqueous Me2CO). XV also forms the tartrate, m. 78-80° (alc.-Et2O). XII (12.2 g.) in 50 ml. Et2O added slowly to

in

50 ml. H2O, the Et2O layer removed, and the aqueous phase extracted with CHCl3

gave 1-ethyl-1-phenyl-3-tropaneethanol (XVI), m. 119-20°. XVI (0.44 g.) was dehydrated by heating 40 min. at 100° with 3 ml. concentrated HCl to the ethylene, m. 170-200°. The ethylene hydrogenated in alc. over Raney Ni at 60° and 500 lb./sq. in. gave 1-ethyl-1-phenyl-2-(3-tropanyl)ethane (XVII), an oil, which formed an HCl salt. VIII (15 g.) similarly treated with 2-cyclohexylethylmagnesium bromide gave 2-cyclohexylethyl 3-tropanylmethyl ketone (XVIII), b0.7 157-64°, n<sub>D</sub> 1.5010. XVIII (7.7 g.) in 20 ml. Et<sub>2</sub>O similarly treated with PhLi (from 9.5 g. PhBr) in Et<sub>2</sub>O at 0° gave 1-(2-cyclohexylethyl)-1-phenyl-3-tropaneethanol (XIX), m. 104-6° (EtOAc). XIX (0.5 g.), 1 ml. HI, 3 ml. AcOH, and 0.13 g. red P refluxed 3.5 hrs., the solution filtered, the filtrate diluted with H<sub>2</sub>O, the crude HI salt separated as an oil and crystallized gave

1-(2-cyclohexylethyl)-1-phenyl-2-(3-tropanyl)ethane-HI, m. 175° (alc.-Et<sub>2</sub>O). The free base was a colorless oil; HCl salt, m. 198-200°. Similarly, 25 g. VIII reacted with cyclohexylmagnesium bromide to give cyclohexyl 3-tropanylmethyl ketone (XX), b0.9-1.1 142-53°, crystallizing to a white solid on standing. XX (10 g.) similarly treated with PhLi gave 1-cyclohexyl-1-phenyl-3-tropaneethanol (XXI), m. 139-40.5° (EtOAc). XXI (1 g.) refluxed 0.5 hr. with AcOH and concentrated HCl gave the ethylene

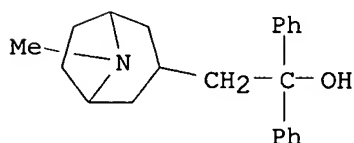
HCl

salt, m. 195-6°. Hydrolysis gave the free base as an oil. The free base (4.4 g.) hydrogenated over Raney Ni at 500 lb./sq. in. and 60° gave 1-cyclohexyl-1-phenyl-2-(3-tropanyl)ethane, colorless oil; HCl salt, m. 167-8.5°; citrate, m. 153-5°; butiodide, white solid. N-Isopropyl-nortropanone (16.7 g.), 11.3 g. NCCH<sub>2</sub>CO<sub>2</sub>Et, 1.6 g. NH<sub>4</sub>OAc, 7.3 g. AcOH, 20 ml. alc., and 0.6 g. Pd-C shaken with H at 60 lb./sq. in. and 60°, the residue refluxed 12 hrs. with concentrated HCl gave crude 3-(N-isopropyl-nortropane)-acetic acid-HCl which was esterified with anhydrous MeOH and HCl 3 days at room temperature gave Me 3-(N-isopropyl-nortropane)acetate (XXII), b0.3 124-7°. XXII (11.3 g.) similarly treated with p-anisylmagnesium bromide gave p-anisyl 3-(N-isopropyl-nortropanyl)methyl ketone (XXIII), b0.2 160-4° and crystallized as a white solid. XXIII (7.5 g.) similarly treated with PhLi at 0° gave 1-(p-anisyl)-1-phenyl-3-(N-isopropyl-nortropane)ethanol (XXIV), white solid. Dehydration of XXIV with oxalic acid and H<sub>2</sub>O gave the ethylene, which when hydrogenated as described above gave 1-p-anisyl-1-phenyl-2-[3-(N-isopropyl-nortropanyl)]ethane; methobromide salt. VIII (164 g.) in 500 ml. Et<sub>2</sub>O refluxed 3 hrs. with 30 g. LiAlH<sub>4</sub> in 2 l. Et<sub>2</sub>O gave 3-tropaneethanol (XXV), m. 63-4° (C<sub>6</sub>H<sub>6</sub>-ligroine). XXV (10 g.) in 50 ml. CHCl<sub>3</sub> treated with 14.3 g. SOCl<sub>2</sub>, refluxed 45 min., and isolation gave 1-chloro-2-(3-tropanyl)ethane-HCl, m. 167-8° (alc.-Et<sub>2</sub>O); free base, b0.9 81°. The base (47 g.) and 0.1 g. NaI refluxed 17 hrs. with 49 g. KCN in 175 ml. alc. and 75 ml. H<sub>2</sub>O, NaOH added to the residual mixture, and the product isolated gave 3-tropanepropionitrile (XXVI), b0.3 114-16°, n<sub>D</sub> 1.4958. XXVI (25 g.) in 100 ml. 37% HCl refluxed several hrs., and evaporated, the residue dissolved in 300 ml. alc., 5 ml. concentrated H<sub>2</sub>SO<sub>4</sub> added, and the residue treated with 40% NaOH gave Et 3-tropanepropionate (XXVII), b0.4 97-100°, n<sub>D</sub> 1.4770. Similarly XXVII treated with PhLi gave 1,1-diphenyl-3-tropanepropanol (XXVIII), m. 141-2.5°. Dehydration of XXVIII with concentrated HCl and 40% NaOH added gave 1,1-diphenyl-3-(3-tropanyl)-1-propene (XXIX), b0.4 170-3°, m. 59-60°. XXIX (4.7 g.) hydrogenated over 5 g. Raney Ni gave 1,1-diphenyl-3-(3-tropanyl)propane as an oil; citrate, m. 170°; methobromide, m. 277°. XXVII reduced with 3 g. LiAlH<sub>4</sub> gave 3-tropanepropanol (XXX), b2 128-31°. XXX (7.7 g.) treated with 10 g. SOCl<sub>2</sub> gave the HCl salt, which treated with K<sub>2</sub>CO<sub>3</sub> liberated 1-chloro-3-(3-tropanyl)propane (XXXI), b2 100-2°. XXXI (5 g.) refluxed 10 hrs. with 0.1 g. NaI, 5 g. KCN, 10 ml. alc., and 0 ml. H<sub>2</sub>O gave 3-tropanebutyronitrile (XXXII), b0.3 132-5°. XXXII (3 g.) refluxed several hrs. with concentrated HCl and the product treated with 40% NaOH gave Et 3-tropanebutyrate (XXXIII),

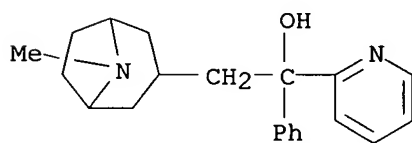


b0.5 115-19°. XXXIII (2.3 g.) similarly treated with p-tolyl magnesium bromide gave p-tolyl  $\gamma$ -(3-tropanyl)propyl ketone (XXXIV), b0.2 188-92°. XXXIV (1.5 g.) in 15 ml. Et2O treated with BuLi and 2-bromopyridine in Et2O gave 1-(2-pyridyl)-1-p-tolyl-3-tropanebutanol (XXXV), crystalline solid. XXXV (0.5 g.) dehydrated with 85% H2SO4, and the product reduced as described above gave 1-(2-pyridyl)-1-p-tolyl-4-(3-tropanyl)butane. II (9.2 g.) with MeLi gave dimethyl-3-tropanecarbinol, which was dehydrated by refluxing with AcOH and concentrated HCl, and the product hydrogenated over Raney Ni to give 3-isopropyltropane as an oil. XXII (11.3 g.) treated with C6H13Li gave 1,1-dihexyl-3-(N-isopropyl-nortropane)ethanol (XXXVI), white solid. XXXVI (8 g.) refluxed 45 min. with AcOH and HCl gave an unsatd. product as the HCl salt which was hydrogenated over Raney Ni to 2-hexyl-1-[3-(N-isopropyl-nortropanyl)]octane as an oil. XXXIII (14.3 g.) similarly treated with cyclopentylmagnesium bromide gave cyclopentyl 3-(3-tropanyl)propyl ketone (XXXVII), b0.9 152-6°. XXXVII (3.5 g.) dehydrated and the product reduced over Raney Ni gave 1-cyclopentyl-1-phenyl-4-(3-tropanyl)butane, a colorless oil.

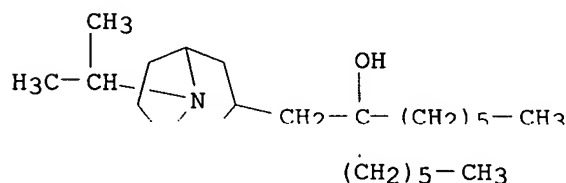
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 102809-40-5P, 3-Nortropaneethanol,  $\alpha,\alpha$ -dihexyl-8-  
 isopropyl- 102945-26-6P, 3-Tropaneethanol,  $\alpha$ -cyclohexyl-  
 $\alpha$ -phenyl- 103034-31-7P, 3-Tropaneethanol,  
 $\alpha$ -(2-cyclohexylethyl)- $\alpha$ -phenyl- 108300-13-6P,  
 3-Tropaneethanol,  $\alpha$ -ethyl- $\alpha$ -phenyl- 114277-51-9P,  
 3-Nortropaneethanol, 8-isopropyl- $\alpha$ -(p-methoxyphenyl)- $\alpha$ -phenyl-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 95131-86-5 CAPLUS  
 CN 3-Tropaneethanol,  $\alpha,\alpha$ -diphenyl-. (6CI, 7CI) (CA INDEX NAME)



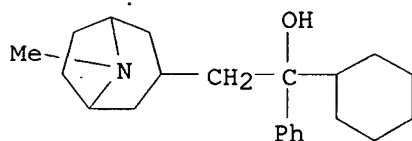
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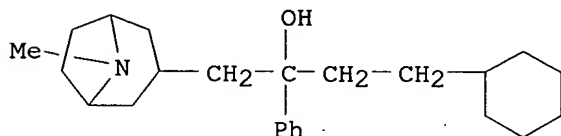
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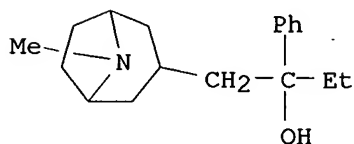
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 CN 3-Tropaneethanol,  $\alpha$ -cyclohexyl- $\alpha$ -phenyl- (6CI) (CA INDEX NAME)



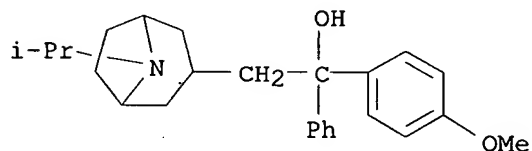
RN 103034-31-7 CAPLUS  
 CN 3-Tropaneethanol,  $\alpha$ -(2-cyclohexylethyl)- $\alpha$ -phenyl- (6CI) (CA INDEX NAME)



RN 108300-13-6 CAPLUS  
 CN 3-Tropaneethanol,  $\alpha$ -ethyl- $\alpha$ -phenyl- (6CI) (CA INDEX NAME)



RN 114277-51-9 CAPLUS  
 CN 3-Nortropaneethanol, 8-isopropyl- $\alpha$ -(p-methoxyphenyl)- $\alpha$ -phenyl- (6CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
61.26	234.47

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-8.58	-8.58

CA SUBSCRIBER PRICE

FILE 'STNGUIDE' ENTERED AT 09:09:28 ON 14 MAY 2007

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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 11, 2007 (20070511/UP).

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(FILE 'HOME' ENTERED AT 09:03:29 ON 14 MAY 2007)

FILE 'REGISTRY' ENTERED AT 09:03:39 ON 14 MAY 2007

L1               STRUCTURE UPLOADED  
L2               STRUCTURE UPLOADED  
L3               1 S L2  
L4               211 S L2 FULL

FILE 'CAPLUS' ENTERED AT 09:05:21 ON 14 MAY 2007

L5               11 S L4 FULL

FILE 'STNGUIDE' ENTERED AT 09:09:28 ON 14 MAY 2007

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.30

234.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-8.58

STN INTERNATIONAL LOGOFF AT 09:12:17 ON 14 MAY 2007